

48th Year
No. 11

November, 1908

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AMERICAN BEE JOURNAL



Apiary of W. H. Rickstrew.—See page 330.



Apiary of M. M. Baldridge.—See page 330.



American Bee Journal

THE AMERICAN BEE JOURNAL.

PUBLISHED MONTHLY BY

GEORGE W. YORK & COMPANY
118 W. Jackson Blvd., Chicago, Ill.

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Objects of the Association.

1st.—To promote the interests of its members.
2d.—To protect and defend its members in their lawful rights.
3d.—To enforce laws against the adulteration of honey.

Annual Membership Dues, \$1.00.

General Manager and Treasurer—
N. E. FRANCE, Platteville, Wis.

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THE COLORADO HONEY-PRODUCERS' ASS'N, Denver, Colo.

Convention Photo

The Detroit convention of the National Bee-Keepers' Association, in October, was equaled in numbers only twice—at the World's Fair and at the Los Angeles conventions. There were probably over 250 in attendance; at least, a group containing 238 members was photographed, and it is never possible to choose a time when every member is present. I employed a local photographer who is an expert in taking groups of this kind. He makes a specialty of this class of work, and has all of the necessary paraphernalia, including an 18x22 camera and set of seats like those used in a circus tent. These seats are loaded upon a dray, hauled to the spot, and set up, thus allowing of the posing of the members in tiers, one above the other. I selected the location and the time of the day when the light would be the best, and the result is a magnificent photograph of a convention group such as has never been equaled, and probably will never be even approached. There was a combination of circumstances: First, the gathering together of the leading bee-keepers; then the seats upon which to group them in a mass so that the camera could be set up close to them; then the camera of large size and a man who knew how to use it; and, last, but not least, the proper lighting conditions. The artist who took the group told me that he had taken probably 500 groups of this kind, but never one that was more perfect than this one, in *every respect*—not a person moved—every face is as bright, sharp and clear as though taken in a gallery. Then the large size of the camera allowed the faces to be made of good size. I paid the photographer \$25.00 to make the negative, and consider it money well-spent, as I have a group-picture of the leading bee-keepers of this country, that has never been approached in size nor execution. I am proud of it, and shall have it framed and hung in my office by the side of my desk, where, in the intervals of my work, I can sometimes glance at the faces of those friends with whom I have passed so many delightful hours. Just think of having, all upon one sheet, nice, clear pictures of such men as N. E. France, George W. York, A. I. Root, E. R. Root, Huber Root, L. A. Aspinwall, Fred W. Muth, R. F. Holtermann, T. F. Bingham, Wm. McEvoy,

R. L. Taylor, W. L. Coggshall, O. L. Herisher, Prof. E. F. Phillips, E. M. Hunt, W. D. Soper, A. G. Woodman, H. C. Ahlers, J. L. Byers, J. E. Hand, F. J. Miller, E. E. Coving, E. B. Tyrell, and Chalon Fowles; but there is little use in mentioning names, as there is no stopping place.

Another thing: Many of these men were accompanied by their wives, and some of their children, all of which appear in the group.

But I have not mentioned the crowning feature. There is not much satisfaction in looking over a group of this kind if you can recognize, perhaps, only half a dozen faces, but I spent one whole day in securing the names and addresses of those in the group, giving each person a number. In other words, the members are numbered from 1 to 238, the numbers being placed upon the shoulder, or some part of the person, then the list of members, together with their postoffice addresses, are printed and placed below the group, and the corresponding, or proper, number placed in front of each name. For instance, if you wonder who is 83, look in the list, and it is H. G. Sibbald, Claude, Ontario. In this way every member can be identified—you can see exactly what kind of a looking man is some one whose writings you may have followed for years.

The picture is printed upon a semi-matt, carbon paper that gives beautifully soft tones in black and white, and mounted upon the very heaviest, ash-gray mount, -20x24 inches in size, packed between two sheets of cellular board, and sent by express, *prepaid*, safe arrival, in perfect condition guaranteed, for only \$1.50; or for \$2.00 I will send you the picture, and also the Bee-Keepers' Review for 1908 and 1909. Sample copies of Review, and circular giving some of the principal topics discussed this year, will be sent free upon application.

One more point: After examining the photo, if you don't care for it, feel *perfectly free* to return it, at my expense, and the money will be refunded. Get this photo, frame it, hang it in your home, and I am sure there is no picture that you will look at oftener or with more satisfaction. As a bee-keeper and a photographer, I am proud of it.

W. Z. Hutchinson, Flint, Mich.



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American Bee Journal

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A. W. SWAN,
Nemaha, Co., Kan., July 15, 1905.



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CHAS. MITCHELL,
Ontario, Canada, July 22, 1905.



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N. P. OGLEBURY,
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E. E. MCCOLM,
Marion Co., Ill., July 13.

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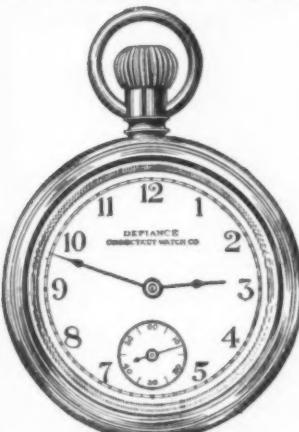
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American Bee Journal

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HOWARD M. MELBEE,
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A really good pen. As far as true usefulness goes is equal to any of the higher-priced, much-advertised pens. If you pay more it's because you're charged for. The Gold-nib is guaranteed 14 karat gold, Iridium plated, hard rubber, hand-finished. The cover fits snugly, and can't slip off because it slightly wedges over the barrel at either end. This pen is non-leakable. It is very easily cleaned, the pen-point and feeder being quickly removed. The simple feeder gives a uniform supply of ink to the pen-point without dropping, blotting or spotting. Every bee-keeper ought to carry one in his vest-pocket. Comes in box with directions and filler. Each pen guaranteed. Here shown two-thirds actual size.

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These are untested, standard-bred Italian Queens, reports of which have been highly satisfactory. They are active breeders, and produce good workers.

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Three copies for 50 cents; or the 3 with a year's subscription, \$1.00; or the 3 copies given free for 2 new subscriptions at 75 cents each.

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(Entered as second-class matter July 30, 1907, at the Post-Office at Chicago, Ill., under Act of March 3, 1879.)

Published Monthly at 75 cents a Year, by George W. York & Co., 118 West Jackson Boulevard.

GEORGE W. YORK, Editor

CHICAGO, ILL., NOVEMBER, 1908

Vol. XLVIII—No. 11



Uniting Weak Colonies

Although it is better that the work should be done earlier, there is still time to unite weak colonies, and the beginner is urged not to try to winter a number of weaklings. One of the lessons learned by a beginner very slowly is that it is the total number of bees one has that counts, and not so much the number of hives in which bees may be found.

Mr. Beginner finds it an easy thing to increase. He has hived all afterswarms separately, and perhaps not content with the results of natural swarming he has taken the matter of increase into his own hands and made a number of colonies—perhaps better named nuclei—by artificial increase. As a result, not one in 4 of his colonies is fit to enter the winter, if indeed he has not divided up that one in four. With so many hives occupied, he looks forward hopefully to the following spring, and in anticipation begins to count upon the great increase he will make in the season following. He has yet to learn the hard lesson that so long as he believes in wintering weaklings, the larger the number he tries to winter the smaller the number he will have the following spring.

The sad part about it is that telling him the truth about it does little good. Only when he learns by experience is he willing to believe that it is better to winter one strong colony, and feel pretty certain he will have that one colony at the opening of the next season, than to attempt to winter two weaklings with a fair chance that he will have 2 hives containing only dead bees the following spring.

But occasionally a beginner will be

found who will so far overcome the craze for rapid increase that he will listen to a word of advice from experience, and it is for this occasional beginner that this item is given.

Good Point in Selling Honey

Water is so abundant, so cheap, that we hardly appreciate its value. Yet valuable as it is, one does not care to buy it at the rate of several cents a pound when it is not necessary. The man who buys 100 pounds of turnips pays for 90 pounds of water. Many other articles of food, although not containing so large a proportion of water, have still more or less of it, and in comparing articles of diet the amount of water in them has something to do with their relative cheapness.

Beekeepers are more or less familiar with the percentage of water contained in honey, but the probability is that the majority of them have never thought of the small amount as compared with many other common foods. Ask the average bee-keeper whether honey contains more or less water than a juicy beefsteak, and it would be nothing strange to hear him say, "Honey is a liquid, beefsteak is not; of course there is more water in the liquid." It has perhaps never occurred to him that there is 3 times as much water in beefsteak as in honey. This is a good point for the salesman to make when presenting the merits of honey to the consumer. W. K. Morrison thus puts it in Gleanings:

"Honey is one of the driest of human foods, as it usually has less than 20 percent of water. Beefsteak, of the most expensive kind, contains 65 percent, and even then there is some bone to be reckoned with. Some of our

most expensive fruits and vegetables are nearly all water, 95 percent, and some even more! This is a point that bee-keepers can harp on a good deal. Anybody can easily see that, between a pound of steak at 18 cents and a pound of honey at 18 cents, the advantage lies with the honey. Moreover, honey will keep indefinitely, whereas beefsteak deteriorates in a few hours."

Drone-Comb in Extracting-Supers

The common teaching is to discourage the drone-comb very largely, if not entirely. Now comes M. H. Read, Hon. Sec. Irish Bee-Keepers' Association, and proposes "nothing less than to aim at the production of a good supply of drone-comb for use with the extractor."

The first reason given is that the honey will flow more readily from the larger than from the smaller cells. There is probably something in that. "Besides," proceeds the writer, "the bees naturally draw drone-cells out more than worker-cells, and there is the advantage of less labor in uncapping for a given weight of honey. Further, spacing of combs means fewer bee-spaces between them in a super; so that the super should contain the more honey."

This will no doubt appeal to the inexperienced beginner, but it will hardly bear investigation. "The bees naturally draw drone-cells out more than worker-cells" when both are occupied with brood, but do they when used for storing honey? There may be just as wide spacing with worker as with drone-comb, and with the same spacing there will be the same number of bee-spaces, and the same amount of honey in the super.

If drone-comb is suppressed at all in the brood-chamber, the bees will be sure to have drone-comb in the extracting-super, unless prevented by excluder-zinc, and some good extracted honey-producers do not otherwise find it necessary to use excluders. Even when an excluder is used, have you never seen the bees keeping drone-cells empty in the super in the vain hope that the queen would come up and occupy them?

Crushing Bees When Handling the Frames

Between the end-bar of a frame and the front or rear wall of a hive the space is so small that some care must be

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taken or more or less bees will be crushed when a frame is lifted out or put back in. Some are so steady of nerve and muscle that they can move frames quite rapidly while maintaining the proper distance between end-bar and hive-wall, so that a bee is rarely injured. Not so others.

To prevent mangling bees, some have a staple driven into the outside of each end-bar, near the bottom, which prevents the possibility of allowing the end-bar to strike against the hive-wall. Some will object that at least in some cases the jarring of the staple against the hive-wall is objectionable, as when one is looking for a queen, for a very slight amount of jarring sets the bees to running, when the finding of a queen becomes a doubtful problem. L. S. Crawshaw has a plan to avoid danger without having end-spacers on the lower ends of the end-bars. He says in the British Bee Journal:

"I have devised a method by which speed and certainty may be secured, even with the last comb and tight quarters. Slide the end-bar down the hive side; that is, allow double bee-way at one end and none at the other. This prevents sway or swing in any direction, and crushing cannot take place."

Thanksgiving Day has come again,
With blessings great and small.
Let thoughts of gratitude o'erflow
The hearts of one and all.

Late Uniting of Colonies

About this time of year it is a common thing to have the questions, "How shall I unite? What about queens when uniting?" etc. Well, the manner is not so important as it is that you unite any colony that is so weak that its living through the winter is a doubtful problem.

A very weak colony may be united with one that is not very weak, but yet hardly up to the mark. Two weak colonies may be united, or more than two. Any way, so that when you are through there shall be no colony which has not enough bees to cover well at least 4 Langstroth frames, and better still if it cover 6 or more.

With regard to queens, if there is any choice, save the best and destroy the others. If you know of no preference, leave it to the bees. In the matter of uniting 2 colonies of unequal strength, you may expect that the queen of the weaker will be destroyed by the bees.

If the colonies to be united are some distance apart, unite on the stand of the stronger colony. If the colony to be moved is made queenless 2 or 3 days before the removal, there is less likelihood of bees returning to the old stand.

If the uniting is done by alternating frames—first a frame with its adhering bees from one hive, then a frame from the other hive—there will not be likelihood of much fighting. But of late the tendency is to proceed by two stages, first a sojourn together in the same hive without any real mingling of the bees, then the real uniting. One way is to put the two separate lots in the same hive, one on each side, and after two

or three days move them up together. The Scotch authority, D. M. Macdonald, varies this by putting the two lots as close as possible together while still separated by a dummy, the dummy having carbolic acid smeared on its edges. After 24 hours the dummy is removed and the frames moved up together.

Another way that requires little skill will suit many. Set one hive with its contents over the other, with wirecloth between. After 2 or 3 days the 2 lots will have acquired the same scent, and may be united. A favorite plan with some is to put a single sheet of newspaper between the 2 hives instead of the wirecloth. The bees will gnaw the paper, gradually uniting peacefully. The 2 stories may be reduced to a single story at the convenience of the bee-keeper after 2 days, or after a week or more.

Here is a plan from Gleanings that will be especially heartening to any one who may fear he has put off uniting too late:

"A very good way to unite, and avoid all loss of returning, is to do so at the very time of putting them in the cellar. For example, A and B are both too weak to winter outdoors. We will place the two together in one hive, making a broodnest out of the best combs selected from the two hives, leaving the other combs for reserve feeding in the spring. As soon as the two families are placed in one hive they should be put in the cellar immediately, and left there till spring."

Packing Comb Honey for Shipment

We received the following letter just a little too late for its appearance in the October number:

EDITOR YORK:—I have about 1000 pounds of comb honey in $4\frac{1}{4} \times 4\frac{1}{4} \times 17\frac{1}{2}$ sections, in 24-pound shipping-cases, which I want to ship, but I am at a loss to know how to pack it in

ing in honey in a large way, and, of course, received and reshipped many consignments of comb honey, and never, so far as we recollect, was there any loss when properly packed for shipment.

The illustration herewith shows the correct method quite clearly. Before putting in the cases of honey (any number desired, but perhaps 6 or 8 of the 24-pound cases are enough for one crate), there should be from 4 to 6 inches of straw, hay, or excelsior put in the bottom of the crate, on which to place the cases. It acts as a cushion, so that the honey will not be broken out of the sections should the crate be set down rather hard.

While it may not be absolutely necessary, we think it advisable to have the crate large enough so that the packing material can be put at the sides of the cases as well.

A very important matter is the handles, made by nailing on boards at the sides of the crate, and nearly at its top, and extending far enough at each end so that they can be used as handles by two men to carry the crate of honey. These projecting handles also help to prevent the crate from being turned over endwise as might be done by some careless or ignorant freight-handlers.

Of course, each crate will have strips or boards nailed on top so that no case of honey can be taken out without first removing the crate's top. And on the top should be put, either printed on cardboard or with large, black marking paint, these words:

**COMB HONEY
HANDLE WITH CARE**

We believe the railroad companies require the glass sides of the cases to be



CRATE FOR SHIPPING COMB HONEY.

crates. I suppose about 6 cases to a crate would be best.

Have you a cut, or can you give me a description of how to make a crate?

Should there be space left around the shipping-cases for excelsior or straw packing?

A. S. CROTZER.

This is indeed a very important subject, and one, fortunately, in which we have had somewhat extensive experience. For several years we were deal-

turned inside the crate so as to be unexposed.

We have invariably found that when comb honey is thus prepared for shipment, it arrived at its destination in perfect condition. It pays thus to pack it and not run any risk of having it broken in transit.

After the bee-keeper has produced a fine lot of comb honey, why, by care-

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lessness or negligence, lose half or more of its value by not preparing it properly for safe shipment? Crates may cost a little extra, but in the end they pay well—both in satisfaction to the shipper, and in greater convenience for handling the honey.

Western Honey Quotations

The following letter, largely explains itself:

EDITOR YORK:—In the American Bee Journal for October, on the first editorial page, is a comment entitled, "The Honey Market Unusual," wherein it is claimed that comb honey stands firmly in San Francisco at 17 cents. By the way, I see Gleanings makes the same claim.

Now the above quotation is very far from the truth, in proof of which I enclose 2 letters, one from a commission firm in Sacramento; and the other from a bee-keeper in Nevada. Note the commission man informs me that Mono County and Nevada have had big crops of honey. Well, I know that Mono County had less than 400 cases of comb honey; and Mr. J. W. Carter of Nevada, informed me in September that this was the poorest honey season he had known in his bee-keeping experience of 17 years. So far as my own experience goes, this is my first season in this part of the country.

I don't know how to run a bee-paper, but it seems to me you ought to be in a position to be better informed as to the real condition. I have been a subscriber of the "Old Reliable" ever since you became its editor, so I know very well it was not the intention to misrepresent.

I am hoping for better honey-prices.
H. CHRISTENSEN,
Coleville, Mono Co., Cal., Oct. 26.

The letter Mr. Christensen enclosed from the Sacramento house claims there is a large supply throughout Nevada, as well as in Mono and Inyo Counties, California, with little demand; saying that they deal only on commission, and can get about 12 cents for fancy white. The Nevada bee-keeper says all he can get is 9½ cents for first grade and 8½ cents for second.

The desire of the American Bee Journal is always to give the truth as nearly as it can find it; and so our correspondent has our thanks for his letter. If 17 cents is too high a quotation for San Francisco, it is best that we should know it. The authority for 17 cents as the highest price for water-white comb is the Pacific Rural Press. While there is a wide margin between the prices sent by our correspondent and that quoted by the Pacific Rural Press, the question is still an open one as to the correctness of the latter, for Sacramento prices and prices in Nevada may vary no little from prices in San Francisco. Still, it is hard to understand so much difference in so short a distance. Perhaps some of our San Francisco friends can help us out.

Larvae for Queen-Rearing

For a long time Editor Hutchinson and Dr. C. C. Miller have been at odds as to the wisdom of the bees in selecting the right larva for queen-rearing, the former insisting that when bees are made queenless they are in such haste to rear a queen that they select larvae too old for best results, the latter insisting that this is a libel on the bees.

Dr. Miller has for a long time been trying to get Mr. Hutchinson to try an experiment, but without success, although, he says, "I have coaxed him, I

have defied him, to make a very simple experiment that I think would convince him—simply to unqueen a colony, and then look 24 hours later and say how old were the larvae he found in queen-cells." To this Mr. Hutchinson now replies (Bee-Keepers' Review, page 313), "I don't know how large a larva is at one day old, nor at 2 days, nor at 3. Perhaps it is to my shame that I don't, but I don't. I know when a queen does not come up to the mark, but I don't know how large is a 2-day old larva." Then he gets back at Dr. Miller after this fashion:

"I have repeatedly asked him to explain why some of the queens were inferior when the bees were given larvae of all ages to choose from, and why the queens were all excellent when the bees had only just-hatched larvae from which to make a choice, and he has never attempted a reply."

It is now up to the Doctor to come

forward with an answer. If he begins his answer as does Editor Hutchinson with "I don't know", will the two answers put together be sufficiently illuminating to enable us to decide whether the bees are sufficiently wise to select proper larvae for queen-raising?

To Prevent Bee-Stings

When about to handle bees, wash the hands with weakened carbolic acid.—Praktischer Wegweiser.

Nothing is said as to how long the effect of the acid remains, or how often the hands should be thus perfumed if one is to work with bees all day. If one washing will last long enough, and it proves effectual in preventing stings, some who use gloves may find it worth while to try the proposed preventive.



Visitors from Austria

Mr. and Mrs. A. Schröder, of Trieste, Austria, visited us October 23. They arrived in this country Oct. 16th, and expected to remain only a very short time. Mr. Schröder now has 32 colonies of bees, while sometimes he has 50 colonies. He has been a subscriber to the American Bee Journal for over 30 years. He was unfortunate in not coming to this country in time to attend the National convention in Detroit. Mr. S. speaks 5 languages, and both are very pleasant to meet.

The Detroit Convention Photograph

The secretary of the National Bee-Keepers' Association, Mr. W. Z. Hutchinson of Flint, Mich., went to considerable expense to get an expert photographer to take a picture of those attending the National convention at Detroit, Oct. 13, 14, and 15. The picture is 20x24 inches in size, and will be sent by prepaid express for \$1.50. It is a most beautifully finished photograph, every face being very clear and distinct. As Mr. Hutchinson says in his advertisement on another page of this number, it would be a fine picture to frame and hang up in any bee-keeper's home. It is the best picture ever taken of any National bee-keepers' convention in this country. We hope that Mr. Hutchinson will receive a large number of orders for it.

Bee-Moths and Their Endurance

In an article in Praktischer Wegweiser, it is said that the eggs, larvae, and pupae of the bee-moth are so tenacious of life that they will endure the cold of winter without being destroyed.

That is contrary to common belief in this country; for certainly many combs entirely safe that have been left out to endure the freezing of winter. It would be interesting if we could learn how far south this holds good.

Among the means for prevention given in the article mentioned, it is rather strange that the two most important means—at least considered the most important in this country—namely, strong colonies and Italian blood, are not mentioned.

The C. M. Scott Co. Won First Prize

The C. M. Scott Co., of Indianapolis, Ind., was awarded the first prize on display of bee-supplies over the strongest competition ever exhibited in Indiana, at the State Fair in September. The line of goods handled by the Scott Company is the famous Lewis Bee-Ware.

Illinois State Fair Aparian Exhibit

It was our privilege as well as honor to be selected again as judge of the bee and honey exhibits at the Illinois State Fair, held at Springfield, Sept. 25 to Oct. 2, 1908. We have seen a number of aparian exhibits at various fairs, but with the exception of those at the World's Columbian Exposition here in 1893, we believe the exhibits in the department of "Bees and Honey" at the Illinois State Fair this year were the best we ever saw.

There were only 6 exhibitors in all, and only 4 who really competed in everything in the aparian line. They were, Aaron Coppin, of Wenona; Chas. Becker, of Pleasant Plains; Jas. A. Stone & Son, of Bradfordton; Geo. Rumler, of Indiana; Louis Werner, of Edwards-

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ville; and the 6th person who had only one exhibit, and that was a display of designs in beeswax. The first 4 mentioned were very fine indeed.

The premiums as finally awarded were

exhibited by Jas. A. Stone & Son. It represented Uncle Sam chained to the saloon, the whole thing—saloon building, chain links and Uncle Sam—being made of beeswax. It certainly was an

ing a success of his work in the interest of bee-keeping and the kitchen.

We are glad to be able to accompany this report with some pictures of the aparian exhibits which were so difficult to judge, on account of their general superior excellence.

Detroit National Convention Notes

Another National convention has been held. It was a good one, too. The attendance was large—some 250. Not quite as many Canadian representatives as we expected, but their quality was finer than their famous basswood honey, which was such a "bone of contention" years ago. (Honey isn't usually very "bony," is it? Still, we used to hear of some honey that was "fishbony," on account of the comb foundation used in it not having been thinned down properly by the bees.

Dr. Miller was very conspicuous on account of his absence. Many enquired for him. There seems to be a large vacancy in any National convention when the good Doctor is not there. He is revered all over this and other lands, not only for his extensive aparian knowledge, but for his excellent personal qualities. To know Dr. Miller is simply to love him. We count it one of the chief joys of our life that we have had him so long as an intimate friend and advisor. May he live to be a hundred years!

Mr. A. I. Root was also present during nearly all the convention proceedings, and often took an active part. He is getting towards the 70th milestone, and yet seems to be holding his own in health and otherwise. His name is probably more widely known than that of any other bee-keeper in all the world. He has done so much to advance the interests of bee-keepers, through aparian inventions, and the pushing of improve-

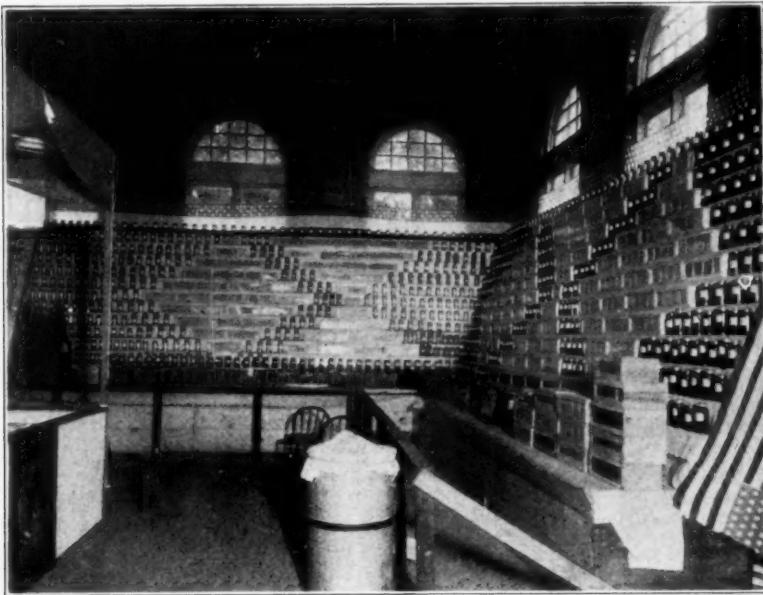


EXHIBIT OF AARON COPPIN, AT ILLINOIS STATE FAIR.

as follows, using only surnames in order to be brief:

Display of Comb Honey—1st, Coppin, \$20; 2d, Rumler, \$15; Becker, \$3.
Collection of labeled cases containing 12 or more pounds of white honey from different flowers—1st, Becker, \$8; 2d, Coppin, \$5; 3d, Rumler, \$3.
Collection of labeled cases containing 12 or more pounds of amber or dark honey from different flowers—1st, Coppin, \$8; 2d, Becker, \$5; 3d, Rumler, \$3.
Case of white clover comb honey, 12 to 24 pounds—1st, Coppin, \$4; 2d, Stone, \$3; 3d, Becker, \$2.
Case of sweet clover comb honey, 12 to 24 pounds—1st, Becker, \$4; 2d, Coppin, \$3; 3d, Rumler, \$2.
Case of basswood comb honey, 12 to 24 pounds—1st, Coppin, \$4; 2d, Becker, \$3; 3d, Rumler, \$2.
Case of amber comb honey, 12 to 24 pounds—1st, Rumler, \$4; 2d, Coppin, \$3; 3d, Werner, \$2.
Display of samples of extracted honey, not less than half-pound each—1st, Stone, \$5; 2d, Becker, \$3; 3d, Coppin, \$2.
Display of extracted honey—1st, Becker, \$20; 2d, Coppin, \$15; 3d, Stone, \$10.
Honey extracting on the grounds—1st, Stone, \$5; 2d, Coppin, \$3; 3d, Becker, \$2.
Frame of comb honey for extracting—1st, Coppin, \$5; 2d, Stone, \$3; 3d, Werner, \$2.
Display of candied honey—1st, Stone, \$20; 2d, Rumler, \$15; 3d, Becker, \$10.
Display of beeswax—1st, Becker, \$15; 2d, Stone, \$10; 3d, Rumler, \$5.
One-frame observatory hive dark Italian bees—1st, Werner, \$4; 2d, Becker, \$3; 3d, Rumler, \$2.
One-frame observatory hive golden Italian bees—1st, Rumler, \$4; 2d, Becker, \$3; 3d, Werner, \$2.
One-frame observatory hive Carniolan bees—1st, Becker, \$4; 2d, Rumler, \$3; 3d, Coppin, \$2.
Honey Vinegar, one-half gallon, with recipe for making—1st, Coppin, \$4; 2d, Stone, \$3; 3d, Rumler, \$2.
Display of designs in honey—1st, Becker, \$15; 2d, Coppin, \$12; 3d, Werner, \$8.
Display of designs in beeswax—1st, Stone, \$20; 2d, Becker, \$12; 3d, Coppin, \$8.
For manipulating a colony of bees in cage—Werner, \$15.

One of the beeswax designs that attracted the most attention of visitors was

impressive temperance lesson. But some of these good days Uncle Sam will be freed from his cursed connection with the whole infernal liquor business. And bee-keepers will help break the chain that binds them together. May the coming of the glad day be hastened!

We were indeed proud of the exhibits made by bee-keepers at the Illinois State Fair. Mr. H. J. Cater, the genial and

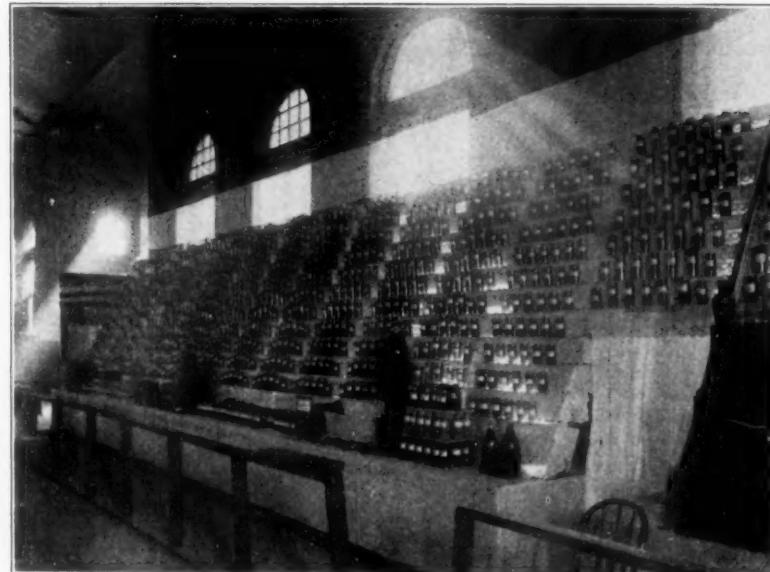


EXHIBIT OF JAS. A. STONE & SON, AT ILLINOIS STATE FAIR.

very capable superintendent of this particular department of the Fair, feels greatly encouraged. He also has charge of the culinary department, and is mak-

ments of others. The name of Root will ever be honored as a leader in progressive bee-culture.

Then President Hilton, with the keen-

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ness and deliberation of the practiced politician, presided over every session. His opening address was an eloquent effort, and closed with a beautiful senti-

ing picture show the second evening, but also at the first evening session handled bees in a wire-cloth cage. The object was to show bee-keepers how

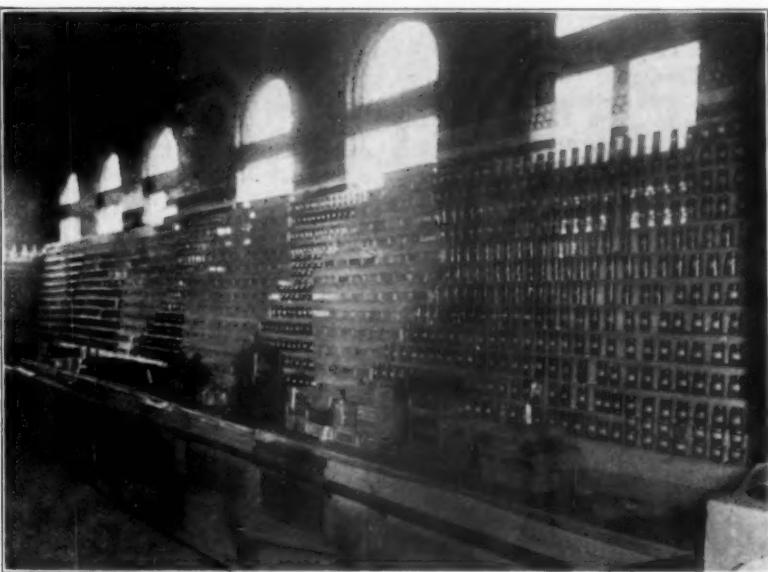


EXHIBIT OF CHAS. BECKER, AT ILLINOIS STATE FAIR.

ment in which both the Stars and Stripes and the Union Jack blended most effectively. It struck a responsive chord in all hearts, and there was great applause.

Secretary Hutchinson, as of old, was present, and had with him his usual peaceful and quiet expression of countenance. He had done his best to get up an entertaining program, including aparian exhibits, and succeeded.

M. E. Darby was there also, who, even if he does live in Missouri, doesn't need to "be shown" very much. He is the State inspector of apiaries.

Mr. and Mrs. R. A. Holecamp were on hand from St. Louis. They also attended the San Antonio convention in 1906. "Mama" Holecamp was very popular on that trip, for when the train was some 4 hours late, and many of us were hungry, she very generously distributed the "goodies" from her large lunch-basket. Seems to us some one has aptly said that the way to a man's heart is through his stomach. Perhaps that was one of the ways she captured "R. A." And he won a good cook, too.

Then there was General Manager N. E. France, with Mrs. France and only daughter, also youngest son, "Lawrence." It will be remembered that at the Harrisburg convention last year, a gold watch was presented to Mr. France; and, with the extra money, some beautiful solid silver spoons were sent to Mrs. France. To be "watched" while "spooning"—well, all was deserved and thoroughly appreciated by both Mr. and Mrs. France.

Drs. Phillips, White, and Snodgrass, representing the bee-keeping interests of the U. S. Department of Agriculture, gave splendid addresses. Dr. Phillips also showed many pictures of apiaries in Hawaii, with the aid of the stereopticon.

Ernest R. Root, editor of *Gleanings in Bee-Culture*, not only handled the mov-

such a demonstration could be used effectively at fairs and elsewhere in creating a larger demand for honey. Mr. Root took off his coat, vest, and collar, rolled up his sleeves, tucked his trousers in his stockings, and then with neither gloves nor veil—simply a bee-smoker—he went into the cage and lifted the frames of bees from the hive, shook them off into a large tin dishpan, and then shook them again as in a corn-popper until they didn't know "where they were at." He took them very gently out

put them back into the pan. And he didn't receive a single sting. It was an interesting demonstration, especially at night with the electric light. Of course, all the time he was manipulating the bees, he talked. It is certainly a very good way to interest a popular audience, who know practically nothing about bees or bee-keeping. And we imagined it was exceedingly interesting to many of the bee-keepers present. At any rate, no one offered to enter the cage with Mr. Root, although there may have been some in the room who would have enjoyed (?) the bee-cage experience.

A. G. Woodman Co., of Grand Rapids, representing the G. B. Lewis Co., and M. H. Hunt & Son, of Lansing, with the Root Co.'s bee-supplies, had good displays. Of course, sample copies of the 4 bee-papers published in the United States and Canada were free to all.

Canada was represented by some of her best bee-keepers, among them being, Wm. McEvoy, J. L. Byer, R. F. Holtermann, H. G. Sibbald, Jas. Armstrong, F. J. Miller, and Editor Jas. J. Hurley, of the Canadian Bee Journal.

Detroit is a beautiful city, but the hall in which the convention was held, was still under construction, so that the hammering and sawing was most annoying. At times it was utterly impossible to hear the words of any speaker. Of course the night sessions were quiet.

It seems to us that while there may not be a growing lack of interest in conventions, some radical changes are needed somewhere to make them more entertaining and profitable to those who attend. It means a good deal to keep up the proper interest in order to make them worth while year after year. Secretary Hutchinson did well, during the past few months, in arousing interest in the Detroit meeting. Perhaps there was not enough of the question-box. This was most unfortunate, as there were present



APIARY OF A. H. SHELTON, OF GOODWILL, W. VA.

of the pan in handfuls, "washed his face," and "combed his hair" with them, and then afterward gathered them off his face, hands, and clothing, and carefully

some of the greatest bee-keepers in the world. No doubt they would have been glad to contribute to the general fund of aparian information, had ample op-

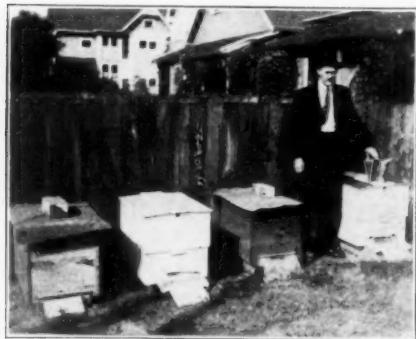
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portunity been given. We are becoming more and more converted to the question-box idea, as it encourages discussion so much more than does the reading of papers, some of which are rather long. But of course this is not intended as an unfavorable criticism of the managers of any convention—only a personal opinion.

We really believe that the convention program is a very important matter. What can be done at a bee-keepers' meeting that will make it of most value to those who attend? This is a good question, and upon its correct answer depends the best success of any convention.

A Successful City Apiary

I send you a photograph of a part of my city apiary. Before coming to Indianapolis I owned about 30 colonies of



APIARY OF N. J. MASTEN.

bees, but thought it impossible to keep them in the city, so I disposed of them, much to my regret. After living here a year or two the fever returned, as it always does after having once owned them, and I ventured to buy a colony or two. And I find that bees can be kept in the heart of a city, with pleasure and profit, without disturbing the neighbors.

My lot is 20 by 50 feet, and this accommodates the little apiary and my chickens. From the hive at my left on which the smoker rests, I got 106 pounds of comb honey, and sold it for 20 cents per pound to my neighbors, and have enough left for family use.

I am an ardent believer in 10-frame chaff hives for outdoor wintering and honey-production.

It is astounding how little the general public knows in regard to bees. One of my neighbors came to the back fence and said, "Mr. Masten, one of your bees is over in my yard. I wonder if it will ever get back home?" And another, "How did those bees ever all happen to come and go into that box? How can you keep them there?"

When we see the ignorance displayed about bees, we feel that there is a wide field for missionary work.

N. J. MASTEN.
Indianapolis, Ind., Oct. 25.

Apiary of A. H. Shelton

I am enclosing a picture of my apiary located in the heart of the flat-top coal field. I started in the bee-business May 28, 1908, but it was nothing new to me,

as my father kept bees when I was a boy. I was brought up in North Carolina. I have Italian bees only, as I think they are the best for all parts of this country. [See previous page.—ED.]

Goodwill, W. Va. A. H. SHELTON.

Telephones for Out-Apiaries

M. H. Mendleson tells in the Bee-Keepers' Review, about using telephones to communicate with his men at out-apiaries. In order to reach one apiary he has 17 miles of wire put up at his own cost, and he says, "This telephone system has saved me much time and money. I would be at a loss without it."

Two California Apiaries

I send photographs of 2 apiaries located in the hills not far from where I live. No. 1 represents the apiary of J. L. Scott, who runs his apiary for extracted honey, but keeps a small portion on hand in sections in case he has a call for it. He uses 10-frame standard hives. The principal honey-plants in his locality are sage, wild buckwheat, and alfalfa. Mr. Scott has 110 colonies of bees.

Picture No. 2 is Mr. Barrett's apiary. Mr. Barrett is a resident of Burbank, Cal., but runs this apiary in a canyon in the foot-hills in Hansen Heights. Mr.



NO. 1.—APIARY OF J. L. SCOTT.

Barrett has about 136 colonies of bees and runs for extracted honey.

The honey crop in this section has been quite light this year.

ANDREW H. KIMBALL.
Sunland, Cal.

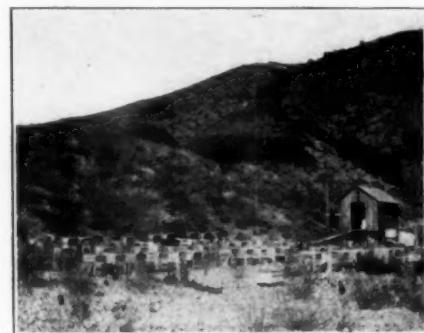
Hershiser on Marketing Honey

On another page will be found the very valuable paper read by Mr. O. L. Hershiser, at the Detroit convention of the National Bee-Keepers' Association, held last month. We felt that it might do much good this year yet, if it were published at once. So we requested permission to put it in this number of the American Bee Journal. We wish that it might be read most carefully by all. Mr. Hershiser has had large experience, and knows whereof he speaks. It is a most valuable contribution to the literature on marketing honey. Read it carefully, and try to put into actual practice its many excellent directions for disposing of your honey crop.

Apiary of M. M. Baldridge

The picture on the first page shows my apiary of nearly 60 colonies as it appeared on August 4, 1908. It is located in the central part of St. Charles, which has now a population of about 4,000.

The main purpose of this photo is to show the close proximity of the apiary to 2 of the public streets and the home of one of my neighbors. The hives front the east, and the front row is within 50 feet of the sidewalk on which a great many people, including many children, pass daily. The hives on the north end of the 5 rows are within the same distance from the sidewalk on the east and west street that leads to one of the public schools, and on which many children pass daily when the school is in session, and yet my bees do not molest any one, so far as I am advised. At least I have had no complaint from any



NO. 2.—APIARY OF MR. BARRETT.

one passing by my apiary on either of these sidewalks. My neighbor's house in the background is within 75 feet of the west row of my apiary, and no one has been stung or molested there for a long time, so far as I know.

My bees are both hybrids and Italians. The reason why my bees do not molest my neighbors and others passing by on the sidewalks, must be attributed, I think, to the way I manage them, for during June and July each year I am at work with the bees almost every day, and sometimes every hour in the day. I wear no bee-protection on my face or hands. In fact, I have no bee-veil on the premises, and have had none for a number of years. My idea is that if I can manage my bees without a bee-veil they will then disturb no one outside of the bee-yard. And this I find to be true in practice.

I have now kept bees in this same yard for the past 37 years, and they have always been managed in about the same way.

M. M. BALDRIDGE.
St. Charles, Ill.

Apiary of W. H. Rickstrew

On 1st page my apiary is shown. The tree in the background is apple. The foliage in front is buckwheat in bloom. But the buckwheat was a failure here this year. I sowed three times, but the bees would not work on it. I have it now in fine bloom, but my bees will not work on it. I have 25 colonies, but got about 200 pounds of comb honey.

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I had the same proposition that "Illinois" ran up against. I had several sections that leaked, but not so badly as his.

W. H. RICKSTREW.
Meridian, Okla., Sept. 15.

Foundation-Splints

A writer in The Bee-Keeper's Review says, "I used some of the Miller sticks in place of wiring. They will work, but do not make as nice combs as those with proper wiring. They save on time, and that is the only advantage."

Alfalfa Honey of Washington State

Anson S. White of Yakima Co., Wash., who was superintendent of the honey exhibit at the Washington State Fair at North Yakima, says in a letter to the Spokane Chamber of Commerce that the season's output of honey in Yakima County will be approximately 100 tons, the value of which is estimated at \$20,000. Most of the honey was gathered from Alfalfa. It is clear white of fine grade. Italian bees are the most popular in that valley. Mr. White says than 100 colonies at his apiary yield 5 tons of product.

Bee-keepers in the district are interested in candied honey, as Mr. White's product crystallized more rapidly than any of the others. His was stored practically all from alfalfa and some of the others contained nectar from other flowers. It is believed that if no other plant than alfalfa is visited by the bees, crystallizing will take place with more certainty, and crystallization is much to be desired, as it is a proof of purity. It is also an easy way to handle, as paper packages can be used, thus dispensing with comb and bottles. The granulated honey is so convenient for table use, as it can be handled like butter.

A Short Visit at Dr. Miller's—The T-Super

On Oct. 27th, we unexpectedly found that we could call on Dr. Miller, at Marengo, Ill. We had been to Freeport, Ill., on business, and returning to Chicago we stopped off at Marengo. We found the Doctor and family well, and in the midst of cleaning and casing his large crop of honey for market. The total was 19,480 sections from about 129 colonies, spring count. And the honey is the finest white clover. It weighs about 11 pounds to the 12 sections—a nice, uniform weight.

We were shown just how Miss Wilson cleans the sections, both top and bottom, before taking them from the super. She can easily clean 1000 a day in the T-super. They are scraped and sandpapered on top and bottom in lots of 24. We know of no other super that compares with the T-Super for rapidity of handling from the empty sections to the full case, ready for shipping to market. It is a pity that comb-honey producers, who wish ease of handling and to do rapid, effective work, can not be led to see the merits of the T-super. In the matter of cleaning the sections by the superful it has no equal on the market. And then there are so few "contrap-

tions" and pieces to it. It is so simple in construction.

But one needs to see how all the details are handled in connection with this super, else he will not comprehend its great advantages. It is very difficult to describe them on paper so that they will be understood. But Dr. Miller has everybody "beat" when it comes to a comb-honey super. He has no financial interest what-so-ever in its sale, so from a financial point of view he doesn't care a fig whether or not bee-keepers use this super. But for their own great benefit he can not understand why the T-super is passed over, and others, which lack so much in real merit, are used so extensively. It must be because the T-super has never been pushed by the manufacturers.

We believe that if the dealers in bee-

supplies could understand just how Dr. Miller uses the T-super, and could see how really superior it is in every way in which a comb-honey super is used, it would not be long before all comb-honey producers would have it, and no other.

If Dr. Miller and Miss Wilson could be persuaded to make a demonstration, of this super at the Chicago-Northwestern convention, Dec. 2 and 3, it would be a great thing. We'll ask them to do it.

But we didn't start out to boom the T-super, even if it is a good thing. We expected only to report that Dr. Miller looks younger, and seems to be feeling better, than he did several years ago; ditto Miss Wilson; and that they harvested next to the largest crop of honey in 1908 that they ever had. Their former largest crop was in 1903.



Conducted by EMMA M. WILSON, Marengo, Ill.

Split Sections.

A good deal has been said about split sections lately. One of the sisters, Bertha M. Timoney, thus expresses herself in Gleanings in Bee Culture:

"The split section is all right until taken from the hive. I have but one life to live, and I do not want to take part of that in explaining to people why I took that nice, white, polished section and made that ungainly saw-cut through it, and then plastered the crack up with beeswax."

That's well said. Whatever the brethren may think about it, a sister's sense of daintiness will object to that ugly blight upon our pretty sections. With both top and bottom starters, all objectionable appearance is avoided, and the business is done just as well.

A Sister Queen-Breeder—Moving Bees—Taking Off Honey.

I have been purchasing from 5 to 20 queens every year for the last 25 years, and the best queens I ever received came from a lady residing in Illinois. I was then residing in Rock Co., Wis. These queens were extra-well behaved, only moderately yellow, and good workers. So that I requested a whole apiary with them, which averaged 125 pounds of comb honey to the hive the next season. I had 2 of the queens sent to California, where several thousands were reared, of nearly the same stock. I could at one time count up 15 apiaries which were established with this stock. Several of these apiaries we have read about, in the bee-papers.

As these bees were continued to be bred here in California, they became of the lemon-yellow shade; or, a sort of

watery-grey. The workers were so unusually large as to cause astonishment. I exhibited them at fairs where there were others from different States, and there was never a bit of trouble in walking away with all the premiums. They were extra quiet at the fairs. That is, they did not worry over their confinement. A 2-comb observatory colony finished up a row of 17 queen-cells while perched on a standard in the exhibition room, and after sealing the cells they added the little combs to the cells as they often do in strong colonies. It requires either very correct management, or else very well-disposed bees when they complete every cell under disturbed conditions.

I always sold the queens for \$5 each. Several hundred have been stolen from the apiaries when I was away. For several years it was quite common to miss several of my best colonies in the spring. And three or four who stole colonies or queens wrote me letters of confession, years afterward. And those bees actually gathered lighter colored honey than any other stripe of bees I ever saw. I have never been able to buy as good stock as I was able to produce from home stock. The only way to get or keep good stock is to keep rearing and selecting. The bees of the best established breeders in the United States are all the time changing, in color and other characteristics.

One day as my wife was returning from the post-office she saw a small swarm on a fence-post, and an old man and several other persons looking at them. Our apiary was about 2 miles away. She looked at the bees and said that she knew they were from our apiary, although there were other apiaries

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nearer. This made the old man so angry that he scolded and went into the house in a hasty way, and confident that she could not get them. She folded her lap-robe in a manner as to make a sack by the aid of a few pins, and pinned one of her bee-gloves, which she also used for driving, on the inside of the sack. As she expressed it, those bees got on the inside in post-haste. In 5 minutes there was not a single bee outside. They had been traveling and clustering so long that they were anxious about the matter. She said she would not have taken them if the man had not acted so spitefully.

When I kept less bees than now, I practiced moving them several times a year to catch the honey-flows from different sources. In the spring of a good season my bees would be located in the valley so that their removal to the sage-fields was the first thing to be done at the approach of a good season, or, a good honey harvest. A part of this operation is different from the usual methods which are followed by other bee-men, which is that my bees are always loaded on the wagons at midday and the trip is made during the afternoon and evening. The bees endure the confinement better, and begin to work in better disposition the next morning. I have hauled 48 colonies 35 miles between 12 o'clock noon, and 12 o'clock midnight, with one horse, and the horse did not sweat, although it was a very hot day in July. And most of the hives were double stories and full of honey. It requires an expert knowledge of the roads and horsemanship to do such things. For 4 to 6 weeks before moving the bees I began to fit the horses for it, by better and heavier feed and exercise at heavy work. I prefer to use 2 wagons, each drawn by one horse, rather than 2 horses on one wagon.

Well, what I am trying to get around to say is that one time I loaded up 2 wagons with bees and drove them up in front of the house, in the street, and hitched while I ate dinner, expecting to engage a young man a short distance up the road to drive one of the loads. My wife had been in bed for a week or more, but when she saw the loads of bees through the window she began to make up her mind to go along and drive, as she had often done before. The interests along the road, the camping out, and the cares which came swiftly into mind, entirely dispersed her disease. She took all of the honey out of the 200 or more colonies, amounting to 10 or 15 tons, and managed the hiving of hundreds of swarms, and when the harvest was over she was strong and hearty, and weighed 16 pounds more than at the start.

She always chose the removal of the honey from the hives as her part, even if there was hired help. We often hired women to do the housework, and men to uncap combs and turn the extractor, but never to remove honey from the hives or manage swarms. That part requires skill and judgment, which is not so easily picked up. We could better afford to have inexperienced help waste honey, or abuse the machines, than to misuse the bees in removing the combs

from the hives. I believe the nature of the bees is varied very much by the way they are handled.

C. W. DAYTON.
Los Angeles Co., Cal. Oct. 1.

Heartiest thanks to you, Mr. Dayton, for your interesting letter. No doubt many of the bee-keeping sisters are doing excellent work in a quiet way, keeping in the background, just as the good sister you mentioned seems to have done. But she has "made good," nevertheless, as you say the best queens you ever received came from her. Tally one for the sisters.

Your wife's exxperience ought to prove an incentive to more women to go into bee-keeping. You say, "she always chose the removal of the honey from the hives as her part of the work, and that part requires skill and judgment which is not so easily picked up." Let me add that aside from that, it is the most delightful part of all bee-keeping, at least to me. One is kept alert and expectant all the time, and it surely is as good as the best tonic, to take off super after super of snowy-white sections.

A Sister's Interesting Experience with Bees.

Although my brother had a nice apiary which he had outfitted with his own hands, and at one time had 2 outlying yards connected with the parent plant at Cloverhook, making in all over 300 colonies of bees, I never took much interest in the little creatures until my

odd hives and that when "spring dwindle" was over, 36 live colonies existed.

Well, I had a wild time of it that first summer. My zeal far outran my knowledge and discretion. I hired a little boy to wield the smoker, and together we worked in season and out of season over them until we stirred up that yard so that the bees fairly drove us out of it, and they would chase us up to the house and lie in wait around the door to set their stings into the first unveiled nose that showed itself. Their vindictiveness and perseverance is a thing to be remembered. Night after night I rested my swollen arms and hands on the cool sheets after retiring, and gazed upon them pityingly both for myself and the poor little things that paid so sad a penalty for my mismanagement. But, somehow, I never thought of giving up the fight, for I became greatly interested in the work, and so struggled along until fall, when I made a bargain to buy back the entire outfit. And to make this part of my story short, did so in about 3 years from the honey receipts of the apiary.

My brother had caught the bee-fever when some 20 years of age, and outfitted first for comb honey. He had a year or so of very discouraging and sticky experience with the railroads, losing very heavily in damaged combs, so as we are far from wholesale markets—he changed from small to large hives, and arranged his apiary for extracted honey. His first hives were 2 feet long by 15 inches wide and high, and with supers the same dimensions. He found these hives heavy and awkward to handle, and the crops of honey failed to justify his expectations, so he changed again and made the hive which we now use. It is the same width and height as the old one, only it is but 18 inches long. It contains 10 frames and combs, the former being a little over 13 by 14 inches in size. We get from a full comb about 12 pounds of honey.

The honey-house shown in the little picture my brother built. It is a pretty little affair, nestling down on the bank near the river, and the yard is leveled over and kept nice with the lawn-mower. At the time the picture was taken I had 80 colonies. "Faithful Pete," my man, has the barrow, and my brother-in-law, who used to run the extractor for me, is in the doorway.

Our house consists of 2 rooms, 17 feet by 17 feet and 7 feet high, a loft and "lean-to." In the first room is our small arch or stove, where the water is heated, wax extracted, etc. On the left of the doorway as you enter is the big honey-extractor, with 4 baskets and reversible crank. Just beyond, at the side, a little oil-stove alight, which keeps the knives and water hot for uncapping work. Across the back end of this room on either side of the doorway into the inner room are substantial working benches, with fixtures on the walls above for tools, etc. There are 3 windows in this room, 2 at the side and one near the front door over the extractor. The inner room is for honey-storage. Shelves for honey vessels and along the right side on a substantial bench, are 3 fine tin vats, each of 500 pounds capacity, and 2 smaller vats for use in short or



MISS F. E. WHEELER.

brother moved into Canada and left the bees here in our cellar to winter, having sold them the previous fall to a party just "over the border."

In the spring when the bees began buzzing in the cellar and crawling out from every crack and cranny into the sunshine, as the owner failed to appear and there seemed no one else to do it, I "braced up," hired a man, and we got the hives out on to the stands in the bee-yard. I remember we took out 50-

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special runs. There is a window in this room opposite the door.

The loft is stored with hives, especially those made for comb honey, many of which were never used. There must be over a hundred of them. We store our surplus and surplus hives in the lean-to.

I think this is the first time I have ever described in detail our apiary.

My ambition was to run my bees to the fullest capacity of our hives (125), and after the first summer's vicissitudes, when winter set in and the bees were safe in the cellar, I proceeded promptly and with great earnestness to devour everything in the shape of bee-literature that I could lay my fingers on. The old numbers of the American Bee Journal were unearthed very effectually, and pored over.

The following spring began what I've always considered my first real work, the former season having been but a preliminary skirmish. With that experience and my winter study combined, I sailed in to win, and am quite confident that, although we have had some serious setbacks, we have made, on the whole, a very fair showing, and today the "Mistress of Cloverhook" is more interested in her apiary than in any other branch of her work, or than she has been at any period subsequent to the first year.

There have been poor seasons for honey, and seasons when the calls from other work necessitated neglect of the bees at critical times. I know of no other employment that so emphasizes the Bible warning, "Now is the accepted time. Now is the Day of Salvation!" If we miss the day that is "just right," it is quite likely never to come again, or to come only to show us what we have lost by not attending to the first one.

I think my bees winter better than my brother's did. I keep them nearer the center of the cellar. We also get along more successfully and more easily with artificial increase. I have got down to 3 frames of capped brood and bees for nucleus, adding extra combs of brood as fast as they can take care of them. We wake our new colonies in the after-



APIARY OF MISS WHEELER.

noon and release the bees the following evening at dusk.

This fall we have been very successful in introducing Italian queens, and, if spared, expect from now on to make our apiary as it should be—the most

important feature of our work; white Holland turkeys, Pekin ducks, currants, and strawberries, being "side-issues," although we have over a thousand extra fine strawberry plants set out this fall, and our currant crop this season was 800 pounds. But we hope to do better yet with these same bushes.

(Miss) FRANCES E. WHEELER.
Chazy, N. Y.

[Miss Wheeler and the writer decided to surprise Miss Wilson, who knew nothing about the above interesting sketch and pictures appearing in this number. But she'll be delighted with it all.—G. W. Y.]

Sunflowers.

A British sister, Mrs. Mary Spencer, reports in the British Bee Journal that she planted sunflowers, expecting much from them, but finds no bees but bumblebees on them. About the same thing occurs at Marengo, as we once found upon having quite a large plot of sunflowers.

Bees and Poultry.

Prof. A. J. Cook says in Gleanings: "I have been successful with both bees

and poultry, and I am persuaded that no other line of work will prove better suited to the average bee-keeper than the care of poultry." If that be true of bee-keepers in general, it is probably true in a more emphatic degree of bee-keeping sisters. Whatever the reason may be, the care of poultry throughout the country in general is probably in 9 cases out of 10 in the hands of women. There may be more of the brothers writing about the biddies, but if you go about the country you will generally find it is the sisters who are feeding the chicks, gathering the eggs, and tying hens to posts by one leg to break them of sitting.

But because Prof. Cook, a successful bee-keeper, is a success with poultry, does it follow that his success with poultry is in any way *because* of his success with bees, and that another equally successful bee-keeper would be equally successful with poultry? In any case, it would be interesting if a number of the sisters would tell us something of their actual experience, not merely with poultry, but with any other line in connection with bee-keeping. That ought to help at least a little to tell us what a woman can successfully do in connection with bee-keeping.



Winter Ventilation of Hives

BY C. P. DADANT.

Every now and then, I receive enquiries as to the amount of ventilation necessary for healthy colonies of bees during cold weather. Allow me to lay down the following propositions:

1. Moisture absorbents over the cluster are better than upper ventilation.
2. A slight amount of upper ventilation is better than a tight ceiling impervious to moisture.
3. Entrance ventilation in a moderate degree is needed.

I will now proceed to tell how I came to consider these propositions as correct.

The winter of 1884-5 was one of the coldest that we have seen in this section. For two months or more together the bees were confined to the hive and unable to take flight. For fully two weeks the thermometer did not get above 10 degrees above zero in the warmest part of the day. We had a number of colonies packed with a cushion full of chaff or of forest leaves in the cap, laid right over the brood-frames without honey-board or oil-cloth to intervene. We also had a number of colonies which had a moisture-proof oilcloth over the frames under the cushion. We had in the same apiaries some colonies which had nothing over the oilcloth ex-

cept the wooden cover, but in a number of cases the oilcloth had holes in it which had been made by the bees, as they will do when the cloth is more or less defective.

Now as to the result: In nearly every instance where the oilcloth was absolutely moisture proof, the moisture had condensed upon the combs at their upper portion to such an extent that when the thaw came, the bees were practically soaked with the melting frost. The hives were in pitiful condition, for not only were the bees dampened by this cold, thawing ice which had slowly gathered over the cluster during the long months of cold, but they were also loaded within their intestines with the unavoidable excrements due to a long confinement. Fully half of the colonies that were found in this condition died within a short time.

The colonies that had holes in the oilcloth were in much better condition. They had suffered from the cold, from having to remain so long in the hive, but their excrements being discharged at the first warm day, the hives became habitable at once, for the moisture had worked its way into the cap, and when it melted the water ran out along the outer edges without dampening the bees. The colonies that were lost in this lot were the weaker ones, and they had died before the thaw came.

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The colonies which had permeable ceilings and absorbents in the cover were in almost every instance found healthy. The moisture had found its way into the soft absorbents, and in some cases we found the forest leaves positively soaked and moldy, where they had been left on for a few days after the thaw. The heat of the hive and of the sun had combined to create sufficient heat to cause this mold.

We can very readily reason out the different results above mentioned. In an ordinary winter the moisture which freezes over the cluster is not of sufficient amount to soak the bees, and when a fairly warm day comes, bee-keepers will notice this moisture running out at the entrance. This is a good sign usually. It shows that the bees are warming up. But when the confinement is of as long duration as during the above-mentioned winter, the moisture is condensed in so large a quantity that it drips everywhere as soon as the thaw comes, and the bees, already lodged with their excrements, are rendered absolutely helpless. If absorbents are used, chaff, forest leaves (we give the preference to these because they are handy), shavings, woolen rags, old carpets, etc., there is no loss of heat and yet the hive remains dry. Hence a greater comfort for the bees, which in a bad winter amounts to the difference between life and death.

If an upper ventilation is given, the moisture passes off, but at the same time quite a portion of the heat produced passes out also and only the strong colonies can survive.

Now as to entrance ventilation at the bottom of the hive, everybody knows that bees must have breathing air. If a heavy snow comes, a large entrance will prove useful, for it is less readily obstructed. Loose snow is not to be feared, air circulates through it. But if the snow thaws to a certain degree, the water produced may freeze and tightly shut the entrance, when the colony is in danger of smothering.

A very large amount of lower ventilation will in a measure make up for the lack of upper ventilation or absorbents, but this is had at the expense of honey consumption. I have seen colonies in ordinary box-hives go through a very hard winter without any bottom-board at all, the hives being simply set upon 2 x 4 scantlings laid flat. But only exceedingly vigorous colonies could stand such conditions, and I have no hesitancy in saying that I would not sleep soundly during winter nights, if I knew that a part of my bees were thus exposed.

From the above, the reader will readily see why I have come to the conclusion that the worst method of wintering bees is to have a narrow, reduced entrance, and an absolutely water-proof ceiling.

Hamilton, Ill.

Helping the Sale of Honey

BY DR. C. C. MILLER.

Dr. G. Bohrer has an article on page 305 that I have read with much interest.

I am there asked to read again the article by Rev. R. B. McCain, page 241, which I have done. To be sure, Doctor, he emphasizes the point that one need not fear adulteration of comb honey, and the whole drift of his article is toward making the reader think comb honey a thing greatly to be desired; and the second reading leaves me still thinking your article "a pretty good antidote" to his, leaving the reader of both articles to think, "Well, what good to be sure that there is no adulteration of comb honey, so long as there is danger of harm from eating wax, and a possible danger of poison on the comb. I don't care to eat poison, even in small quantities; so no comb honey for me."

Your second paragraph I have read over a number of times. If I understand you now, "the poison that the bees invariably expel upon the slightest jar or disturbance of the hive," is spread over the bees, and in some way they get it on their feet, and from their feet onto the campings, but most likely it never reaches the honey in the cells at all. I confess this is entirely new to me, and I suspect there are others as ignorant as I, who will, with me, desire to know more particularly how the poison gets onto the bodies of the bees and not into the honey. My first understanding, from your previous article, was that the bees sprayed the poison, although you didn't say so, and perhaps I had no right to make such a guess. What you now say seems to bar out any such view. If I understand you now, the poison is without doubt "spread over the bees" in such a way that there is no likelihood it gets into the honey. I don't see how that would be unless the bees wipe their stings on the bodies of each other. If there is any other explanation, I should be glad to have it.

Your fifth paragraph reads, "You ask me how I know that bees invariably thrust out their stings, and that poison is expelled upon any jar of the hive. In reply I will say that I have seen it so often that I feel fully justified in arriving at such a conclusion." And you seem to wonder that I haven't seen the same thing. Well, Doctor, in the thousands and thousands of times I've seen hives jarred, I never yet saw a bee thrust out its sting and wipe off the poison upon its neighbor's back or feet. It ought to be easily seen if it is constantly occurring, and yet I've never seen it. Not once. If you have seen it every time there was the slightest disturbance of the hive, then it must be that my locality is different from yours, or else I am a very dull observer. If in any way I have a wrong notion as to your view, I shall be glad to be righted, with apologies for my obtuseness.

On page 241 you tell about bees getting onto the combs and not into the honey, and in the next paragraph, if I understand you correctly, you say you have endeavored to give "actual statements * * * * which can bring no harm to the sale of the products of our industry," but on the contrary, along with knowledge about extracted honey, "the sale of honey will increase beyond any demand heretofore known." Now, Doctor, if I have a reasonable understand-

ing of the English language, the one who reads that will understand you to say that an increase in the sale of honey will come from a general knowledge of what you give as fact; about poison on the comb, and I asked you on page 270 to tell us *how* this would be. You quoted the question, on page 305, and reply in Italics, "I never said your facts." Well, *I never said you did*; and what you mean by those words in Italics I'm sure I don't know.

I think you must have misunderstood my question, for it isn't like you to dodge a question, and you certainly have given no reply to my question as to *how* there will be an unprecedented demand for honey coming from a spread of your "facts." Instead thereof, after quoting my question, you reply that the pure food law will increase the sale of honey. No one probably will dispute that; at any rate, it is a view commonly current. But what I should like to have you tell us is *how* the sale of honey is going to be helped by spreading your belief. Just now I'm not discussing whether that belief is correct. The whole drift of what you have written is to laud extracted honey and to disparage comb—your very last sentence on page 305 is a fling at comb honey—and I don't dispute your right to do this; but when you say that you are thereby helping to increase the sale of honey, I am anxious to know just *how* a general belief that there is a possible danger of poison on cappings, and a possible danger from eating wax, is going to help the sale of honey by a single ounce. Please give us the answer to that, Doctor.

Marengo, Ill.

How to Secure Good Prices for Honey Even in Years of Bountiful Yields

Read at the Detroit National Convention

BY O. L. HERSHISER.

If an unusually large quantity of any commodity is produced, and is thrown upon any particular market in a lump, the price will necessarily fall, owing to competition and the eagerness of holders to realize on their goods.

If such unusually large quantity of the commodity is distributed in such manner as will supply localities that have had an under-production; or if the disposition of the same is spread out over a considerable length of time, keeping a portion of it out of the market until a season of scarcity, if necessary; or if new markets are created by reason of increased activity in discovering as many as possible of the latent avenues of consumption, directing as it were, the product into new channels, and creating a need where need was before unfelt, there is no need greatly to reduce prices in order to sell the goods.

I wish to apply the above propositions directly to honey-production and consumption. If the apiarist is so fortunate as to have produced a large crop of honey, he should get busy in search of new markets. If his crop is 50 per-



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cent more than he has been accustomed to produce, he has just that 50 percent with which to work up a new market and create a demand that will be of value in years to come. Suppose he has to carry a portion of his crop over to the next year; it is almost as good as money in the bank, and may yield a much larger percentage.

Mr. Mercer, of California, because of unsatisfactory prices, in the year 1903, held his honey until the following year, and thereby realized \$1,000 more for the crop than would have been obtained if sold as soon as produced.

When prices of honey are abnormally low, there is no speculation in holding the honey a year or two, and the more bee-keepers there are who are determined not to sacrifice their honey because of a bountiful crop, and low prices, the more stable will the market become.

In the last issue of the Review, editorial notice is made of a bee-keeper who had been offered 7 cents for the best white clover honey that could be produced, laid down in Indianapolis, and that if sold at such price, it would net him but a trifle above 5 cents per pound. I wish to say, that apiarists, as a class, are largely responsible for such market conditions. The jobber is always anxious to purchase goods at as low a price as he can obtain them, for the reason that his profits are correspondingly greater, and because of the lower price at which he is able to sell, he can do a greater volume of business. He sends out offers for honey, and quotes the current jobbing price of 5 to 7 cents, and in most years is able to supply his wants at these figures. Then, not being a philanthropist, why should he give more?

Once in a while there is a bee-keeper who does not figure the expense of cans and transportation, and thinks one-sidedly only of the 7 cents per pound he is going to obtain. Rather than take 5 cents net from the jobber, the bee-keeper quoted by the Review, would better sell locally to consumers direct for 7 or 8 cents, and thus save the expense of his cans; and what could not be sold locally, might be disposed of at satisfactory prices by a little well-directed advertising. Personally, I do not believe it ever to be necessary to sell extracted honey direct to the consumer at less than 10 cents per pound. I reason that any lover of honey will supply his needs to the limit at 10 to 15 cents per pound in bulk, inasmuch as 10 to 15 cents is a popular price. Lovers of fresh butter in the cities and villages satisfy their wants at 25 to 30 cents per pound, simply because that has come to be the popular price.

If you have honey to sell, but keep still about it, disposing of it will be slow and tedious. There are various ways of directing public notice to the fact that you have honey to sell. If you imagine that a bountiful crop is to be a burden, remember that the local fairs bring together large crowds, among which are many lovers of honey, who will be as glad to learn where they can get it in its purity, as you are to sell to them. Be on hand at these fairs with an exhibit of bees and

honey. Show them how it is extracted, and impress upon the willing listeners that honey-production is your business, and that being a specialist, you are able to produce it of a quality as fine as bees can make it. Allow prospective purchasers to sample it.

Many of you who have exhibited at fairs will bear me out in the statement, that a taste of the honey to a somewhat doubtful inquirer will almost always result in a sale, if the quality is what it should be. Have some attractive cards with your address and an announcement of your business of honey-production ready to hand to all inquirers. Customers gained in this way are likely to purchase of you year after year, and after you have established a trade at a fair price, you will not need to lower it, even if you and others have a bountiful crop. If you think you could take naturally to the temporary occupation of a show-man or sleight-of-hand performer, operate a colony of bees in a cage, *a la Root*, to attract a crowd, and have your salesman ready to sell the honey as the performance proceeds, and while the onlookers are spell-bound.

If you have a good crop, remember that your brother bee-keepers in other localities may not be so well favored. All bee-keepers who have been in the business for years, have a certain steady demand, sometimes reaching into thousands of pounds. They do not wish to lose their trade, and if they allow some other person to pick it up, even for one season, that other person has gained the customers for the future, and you have lost them.

No better advice can be given to bee-keepers who intend to make apiculture a business, and who have had a short crop, than to purchase honey of reliable bee-keepers to carry them over seasons of failure. There is no better way of reaching this class of customers than advertising through the journals. Write up a neat advertisement that will catch the attention of those in need of honey, and have it inserted in two or three of the leading bee-papers for 3 or 4 months, and your honey will be sold with little effort. If you are unaccustomed to writing advertisements that will catch the attention, remember that the publishers are only too glad to help you, or write them for you, and they have a vocabulary well stocked with expressions, words, and synonyms, that will express in the superlative degree the quality of the goods you have to offer. "Smooth, oily finish," "thick, rich deliciousness," and the like, are expressions descriptive of the highest quality, and catch the eye and thought very readily. There is no copyright on words that will beautifully describe your honey, and their use should be freely resorted to—only remember that the statement should be invariably in accordance with the fact, or their use is a positive injury to you, by way of the loss of every customer who purchases on the assumption that your goods are really superior. There is no secret in connection with the production of honey of superior quality. Just leave it with the bees, until thoroughly capped over, or until the end of

the season, and the quality will be perfectly satisfactory.

A few bee-keepers have built up a good business in selling honey by canvassing from door to door direct to families. This method is to be highly commended, as it gives an opportunity to educate the public in reference to bees and honey. Having such an excellent food product of his own production, no bee-keeper should hesitate as to the propriety of this manner of selling. I am informed that a number of bee-keepers of more than ordinary business capacity have made a good success of this manner of selling. Never having had occasion to sell in this way, it is largely a matter of theory with me, but I am convinced that customers thus gained will purchase of you year after year. A number of bee-keepers have obtained good results from advertising in their local papers.

There is one thought I desire to impress very strongly upon you. If you have a bountiful crop, do not get panicky about it, and offer to sell regardless of price. It is never necessary to do so. Let bee-keepers be determined to obtain a fair price, and not compete against each other unfairly, and the normal demand will be well supplied. If there is a surplus over and above, for which there is no demand at a fair price, carry it over to a year of scarcity. You will thus have nearly as much money as though you sacrificed the whole crop; you will have been spared the real misfortune to yourself of having broken and ruined your market, and you will still have the surplus over and above what is required to fill the normal demand, to supply your market in years of scarcity that are sure to follow.

Suppose a bee-keeper's normal crop is 10,000 pounds, and in normal years the price is 8 cents per pound wholesale, his income from the honey crop will be \$800. Suppose he obtains a bountiful crop of say 15,000 pounds, or 50 percent greater than the normal, from the same number of bees. A slight decrease in price in such a season of bountiful crop would be no injustice to the bee-keeper, because the additional expense and labor of producing it is less in proportion than that of producing a normal crop. A slight decrease in price might also be charged to the increased supply, but don't let us ever have a panic because of a bountiful crop, and lose all the latent benefits that nature has showered upon us. If we are to drop the price from 8 cents in the normal year to 6 cents in the bountiful season, when there is an increased crop of 50 percent, we have lost every advantage that was ours, but which has been too often sold for a "mess of potage." Therefore, I emphasize in the most emphatic manner, that you try not to sell to a glutted or unwilling market, but carry over that which may not be sold for a fair price; and, in the meantime, keep busy in developing new markets and outlets for the increased production. A good rule is to sell where there is an anxiety to purchase, and waste no time trying to sell where there is apathy and indifference, and a bearish tendency as to purchasing.

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The good services of the jobber and wholesaler are always to be recognized, and it is certainly no reflection on them to advise bee-keepers to develop their home market, and supply it fully before shipping to the larger centers of consumption. If the home market is fully supplied there will be less honey to be disposed of by the jobber, it is true, but if the jobber's volume of business is thereby lessened he is compensated by better prices and profits on the smaller trade.

I would beg of bee-keepers to avoid the tendency to get into a scramble and cut down the price of their honey to ruinously low figures in order to get the preference of sale away from other bee-keepers. I have but recently been informed of a case where a bee-keeper sent a consignment of comb honey to a commission merchant with instructions to sell for 10 cents per pound if it could be obtained, and for less if necessary to effect a quick sale. There is certainly no profit in producing fancy comb honey at 10 cents per pound, out of which is to be paid, freight, commission, and for sections, comb foundation and labor. The consumer is sure to pay from 15 to 25 cents per section for fancy honey before it reaches his table, and 10 cents for fancy comb honey with charges and cost of supplies out, leaves the producer but a little over 7 cents per section. The difference between about 7 cents and 15 to 25 cents per section, goes to the jobber and retailer by way of trifling expenses and big profits to the non-producer of the goods, by the bee-keeper who is determined to sell whether he makes any profits or not.

Let me urge you, brother bee-keepers, to follow the example and teachings of a few of the craft who have, as far as possible, solved the problem of marketing their product. You have battled against great odds. You have done well persistently to remain upon the firing line until your bountiful crop of honey is safely harvested, but having emerged from the smoke of the battle of obtaining the crop (the smoke from the bee-smoker of course!) do not be satisfied or claim a complete victory until crowned with the full reward of a just and merited equivalent for the pest and most wholesome of sweets—honey—you have provided for the tables of the land.

How I Sell My Honey

BY DR. M. E. MCMANES.

To produce a crop of first quality honey is one thing, but to dispose of it advantageously is another story.

With me as with a great many bee-keepers, the bees are pets, and their care a side-issue, yet if our hobbies can be made a financial success we naturally like them better.

In studying the local market I find grocers do not like to handle comb honey, consequently my first move was to create a demand for extracted. This I did by putting up a first quality article in neat, attractive style, and employing a man to canvass the city thoroughly,

calling at every house. I put labels on all my honey, both comb and extracted, and being well known all over the city I instructed my agent to call special attention to the fact that this was a home article from my apiary. As my name was on the label consumers soon called for my honey at the grocers. When I called on the dealers, explaining what I had, and how I advertised it, I had no trouble in getting orders. The result has been that every grocer in the city sells my honey, and very few handle any other.

My comb honey the grocer gets, is always the best I have. All sections must be *new*, well filled and thoroughly cleaned. My name is on every section. This I do by using a rubber stamp and stamping or printing the label on the unfolded section. If more producers would put their names on the sections to show where they come from I believe less off-grade honey would be put on the market.

My extracted honey is put up in jelly glasses holding 10 ounces, and retails for 15 cents. I sell them for \$1.35 per dozen. The first obstacle I had to overcome was the grocer's argument that 10 cents was the popular price, and that 15 cents would not go. I explained this way: The larger glass costs me but one or 2 cents more per dozen than the 10-cent size; the labels and work are the same, and the consumer gets about double for his money. But the best argument was that the grocer gets more profit, as the 10-cent size costs him from 90 cents to 95 cents per dozen.

My second and last obstacle was the grocer's argument that it is customary to sell honey in bottles. This was easily overcome by the fact that jelly glasses could be used over and over again by the consumer, while bottles were generally thrown away.

That my reasoning was correct is proven by the fact that the local dealers have used over 2,000 glasses and 1,500 sections the present season.

When you sell to dealers don't canvass; and above all don't forget to explain fully how to treat candied honey. Don't think that by saving a few cents on the cost of labels you profit by it, because the more attractive you make your article the better it will sell.

Piqua, Ohio.

Age of Bees—How they Grow

BY G. M. DOOLITTLE.

"I notice that you sometimes answer questions through the American Bee Journal. Will you please tell me through its columns, how long the bee is in the egg form, how long in the larval form, how long in the pupa form, and how long the bee lives after it emerges from its cell?"

Quinby told us in his book, "Mysteries of Bee-Keeping Explained," published about 1865, that the egg, as laid by the queen, hatched in 3 days to a larva; this larva was fed by the nurse-bees 6 days, when the cell containing it was sealed over, remaining thus for 12 days, during which time it underwent the changes of "from caterpillar to butterfly," when the covering to the cell was eaten off and it emerged a perfect bee,

being a period of 21 days from the laying of the egg to the perfect bee, making a little allowance for the weather, as very warm weather hastens this development to a limited extent, and cold weather retarded the same.

Always being desirous to know things for a certainty, I conducted several experiments which proved to my satisfaction that Quinby was correct. In one of these experiments I placed a frame of nice, clean comb in the center of a populous colony about May 15, and looked at it quite often till I found eggs in it, which date I marked on top of the frame. In about 2 hours less than 3 days I found 8 or 10 little larvæ hatched, and in 6 days and 1½ hours these larvæ were sealed over. Twelve days thereafter I looked and found these had emerged from their cells, together with probably 100 others from the cells immediately surrounding the cells which contained them. From this trial I was entirely satisfied as to the correctness of Quinby, and continued so to be, till a few years ago quite a noted bee-keeper said that 6 days was altogether too long for the bees in the larval state, he claiming that 3 to 3½ was very much nearer the correct time.

I felt very much like contradicting the statement, but concluded that I would not, as I had made but two or three experiments, and these when it was generally quite cool weather, still I could not think that both Quinby and myself were wrong. So I went to experimenting again, and although the weather was quite warm the result was 3 days in the egg, 5¾ days in the larval, and 11½ days in the pupa state, making 20 days in all; and 19½ days is the shortest time I have ever known of a perfect bee from the time the egg was laid to the emerging of the perfect bee, no matter how hot the weather was during the whole length of time of incubation. Besides this, I have many times cut out all queen-cells but one from colonies 7 to 8 days after the bees had swarmed, and had the bees build queen-cells over larva still unsealed, and when these queens were old enough to emerge, send out a swarm with the queen hatching from the cell I had left or the one I had given them at the time the rest of the cells had been cut off.

I believe it possible where extreme heat occurs during a period of 19 days, for a very populous colony to develop bees in an hour or two more than that; and I have often known them to be nearly 24 days in developing, where it was steady cool weather, and the colony small during the whole of that time; but 21 days is as near the rule as is possible, and can be counted upon in governing all of our manipulations in making "swarms" or colonies, etc., where we need some knowledge of this matter.

The time of the year when the development of brood is most retarded by cool weather is in the fall, and when most accelerated by warm weather is in May and June.

Regarding how long a bee may live, barring accidents, after it emerges from the cell, that all depends upon the time of year when it becomes a perfect bee. If a bee emerges about the first of June, its life will not vary much from 45

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days; if it emerges about the first of October and the colony containing it winters in perfect condition, it is possible for that bee to be alive the 4th day of July next. "How is that?" do you ask? The bee lives just according to its activities, and when it is all hustle and bustle, as it usually is during June, July and August, the bee wears out its vitality and dies of old age in about $1\frac{1}{2}$ months. On the other hand, if this same bee emerged about the first of October, and the colony, through the approach of cold weather, went into that quiescent state so conducive to good wintering, then the bee would remain quiet and almost inactive till the warmth of spring brought the colony into activity, which activity would not be that of summer, on account of the multitude of cool days, with cloudy, stormy weather which always keeps the bees in their hives during the months of March, April and May, in this locality.

Of one thing I am positively certain, which is, that I have had bees that were not born till the last half of September, living on the next fourth day of July. It happened in this way:

I had a colony of black bees to which I gave an Italian queen the first week in September. This queen never laid an egg that fall on account of no nectar coming in from the fields afterward. When the colony was put from the cellar, it contained none but black bees, as this colony did no breeding while in the cellar, even though it was not put out till near the first of May. From this reason I was afraid the young Italian queen was not good for anything, so I kept closer watch of this colony than of others. The next time I looked, there were eggs, and in due time the golden Italians were emerging from their cells. Along about the middle of June I saw that the black bees began to show less and less, and the Italians more and more, so I was curious to know how this thing was coming out.

On the first day of July there were several hundred black bees in that colony, but on the fourth day I was able to find only about a score, while on the fifth day none were to be found. And from very many changes of queens along during the month of June, I have proved just as conclusively that bees which emerge during the summer months live only 45 days. By taking note of the day the last black bee emerged from its cell, and then keeping watch of the hive from the fortieth day on, I found that on the 46th day not a black bee was to be found, while on the 45th day a few hundred were to be seen.

Now while these things have no direct bearing on the dollar-and-cent side of bee-keeping, yet they are very interesting, and tend to rivet the apiarist to his pursuit, and help him to know how to manipulate his colonies when dividing, queen-rearing, etc., so that he will work in perfect accord with Nature's ways, or as nearly so as is possible to carry out the plans he wishes to make.

Then, these experiments will convince any one that the bees which bring in the nectar from the fields are not the ones which build the comb, or deposit it in the sections, or nurse the larvæ;

that it is 6 days from the time the bee emerges to the time it takes its flight; that it is 16 days old before it enters the field as a forager, and that after it so enters it does very little of the inside work of the hive for the rest of its life.

A knowledge of all of these things helps the apiarist much in many ways, even though it may count only indirectly on the dollar-and-cents part of our pursuit. I realize that none of us would continue long in the bee-business were there no dollars-and-cents part to it; but while I so realize, I am free to admit, that the real *zest* from bee-keeping has come to me through the knowledge obtained by the many experiments I have conducted.

Borodino, N. Y.

The Eucalypti for Fuel, Timber and Honey

BY A. J. COOK.

I am asked by a bee-keeper in Kentucky to give an article on the Eucalypts. I am glad to do this as I am specially fond of these trees, and I am sure that they have a value that is little understood. It must, however, be borne in mind that these trees come from Australia, a very arid region, and one with a very mild climate. We may be sure, then, that the stronghold of the Eucalypts is ability to stand drouth, and that their weakest point would be inability to endure cold. Here at Claremont, where the orange and lemon thrive well, some species of Eucalypts suffer not a little with the cold. It behoves, then, any one contemplating the planting of Eucalypts, to try them at first in a small way, that he may know whether the climatic conditions of his locality are suited to these trees.

IMPORTANCE OF TIMBER BELTS.

One who travels for the first time in England and France, is surprised at the great number of trees which he observes everywhere. That these conserve moisture and greatly serve to modify climate is certain. We may say that much of Europe is a great park. This is peculiarly true of much of England. This not only makes the country exceedingly beautiful, but the trees make the climate equable, and salubrious, and greatly promote the interests of agriculture. We of the United States, will fall sadly short of our duty and privilege, if we do not see to it and plant liberally of trees. We can not act too soon, that our country shall, like England and France, become one great park.

The Eucalypts are so rapid of growth, and so valuable for fuel, timber and honey, that they should receive attention, wherever they will grow and thrive. Surely, in all the great arid West, where the cold does not press too hard, this tree should receive prompt and generous attention. In the more humid regions of the East, the harder species should be tried. Our experience with alfalfa should make us quick to act in this matter. We long thought that this was no plant for the Eastern States, but find upon trial that it has great value, in other than warm arid regions.

VALUABLE FEATURES OF THE EUCLYALPTI.

To my thinking, there are few more fascinatingly beautiful trees than these Eucalypts. Their drooping, beautifully-formed foliage, showy blossoms, curious fruit, careless, yet graceful habit, and often long straggling trunk and branches, make them the gems of any landscape that is marked by their presence. One of my artistic friends, noted for her esthetic taste, says that no other tree is more beautiful, or lends itself to adornment more satisfactorily than does this gift from Australia. I think she is quite right. There is just opposite of my house a manna gum, *Eucalyptus viminalis*, which has become very dear to me. There are several hard by, and I treasure them all as precious possessions. In the moonlight they are graceful and fascinating beyond compare.

Again, the great number of species, makes it possible, by careful selection, to secure timber or lumber of any desired quality. The trees grow, when planted thickly, so straight and tall that they are admirable for masts, and other like uses, where long timbers are desired.

Perhaps the greatest advantage we gain in these trees is their resistance to drought. Coming as they do from an arid clime, they stand a prolonged drought, and so in regions like Southern California and Arizona they will thrive and grow rapidly after the first year, with no care at all. This characteristic is very encouraging, as the growing of the trees is a matter of no small profit, and so the trees will be more and more planted, and, as we have seen, this is very desirable from the stand-point of general economy as well as direct profit. We need more trees, and the Eucalypti will tend greatly to fill this need.

EUCALYPTS FOR BEE-FOLIAGE.

We must not neglect to speak of the value of the Eucalypts as trees furnishing bee-forage. These trees come from the southern hemisphere. When we bring them here, they tend from inheritance to bloom in winter. Of course their new environment tends to bring this blooming season in late spring and early summer. As a result, we may gather the bloom almost any month of the year.

If we may judge from the way the bees visit the bloom, we may conclude that nearly all furnish nectar, in good quantities. Of course, as many blossom in seasons when there are few bees, as do the willows and soft maples of the East, we may conclude that they are not of any great value in the real harvest, but they are valuable in stimulating breeding. Some of the species may give much honey after we put on the supers. It is not true that the honey is tainted by the oil of the plants, and we may be sure that is never true of nectar.

The only discount of the Eucalypts is the fact that they are impatient of cold. While some of the species are more hardy than others, none of them are proof against severe cold. For this reason, any one contemplating planting these trees should know from actual observation that the locality is suited to their requirements, before planting more than in an experimental way.

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THE VARIETIES TO PLANT.

The blue-gum, *E. globulus*, has been much planted in California, and is handsome, hardy against frost, and a very rapid grower. It does not stand the heat as well as the two species next to be mentioned. It blooms from January to May, and the timber is very tough and strong. It has been grown more in California than any other species, but does not do well in the very hot valleys.

The red-gum, *Eucalyptus rostrata*, resists drought and heat much better than the blue-gum, and stands even more cold. It does not grow to be as straight or as rapidly, but the wood is hard and fine. I think it will prove to be one of our most desirable species to grow and cultivate.

Eucalyptus rudis, as grown at Fresno, is a fine tree, and bids fair to equal any

of the species in the colder regions or the hot dry valleys.

The sugar-gum, *E. corynocalyx*, is a fine tree in Southern California, though rather slow of growth, and feeble against cold. The wood is hard and fine, and it blooms in late summer.

The manna-gum, *E. viminalis*, is a fine tree, beautiful to look upon. I think much of it. It is as hardy as the red-gum, I think, but the wood is not equal to either the blue or red gum, though it grows rapidly, and the wood answers well for fuel. Like many other of the gums, it sheds its bark, and so needs some care to keep the street tidy where the tree is planted.

E. ficifolia and *E. sideroxylon*, have colored blossoms, and are very showy. The wood of the last is very hard and fine, and the foliage is specially beautiful.

Claremont, Calif.

during a honey-dearth near the close of the season. This bad feature has been brought out time and again, but they bring this very sticky substance in in their pollen-baskets, and place it about the entrance as if they expected to close their doors at the end of the season. But if the glue is removed when they are put in for winter it will not have to be contended with until the close of next season.

Another objection to them is that they rear too many drones, and they do this all during the season. They rapidly disappear at the close of the honey-flow, but a cluster of them will be found huddled up in some corner of the hive as if in this way to protect themselves during the bees' working season, and during winter when they will be found on the outskirts of the cluster, but not in large quantities. I notice some colonies are far more prone to do this than others, and no doubt the over-production can be bred out of them.

Another objection to them is that they build too much burr and brace comb. I have not been bothered with this much, and I think it can be overcome to a great extent by keeping the bees supplied with the proper room. I have crossed them only with the German and Italian bees. They transfer to the Germans their gentleness and honey-gathering quality during the early part of the season, but when nectar is scarce they do not compact their brood, and to some extent slack up honey-gathering, but they give the honey as good body as the pure stock does, and are very desirable bees.

Their cross with the Italians is not much improvement over the Italians, except that they are better comb-builders and fill the comb near the bottom of the sections and extracting comb better. But the first cross is cross, and for this reason not so desirable.

The first cross with the golden Italians makes a beautifully banded bee. All the bands show the gold and the steel which is a very brilliant color. It must be remembered that the Caucasian bees have been imported only a short time, and we might not expect them to be in every particular just what we desired. A little breeding may be necessary.

Crisp Co., Ga. J. J. WILDER.

Conducted by LOUIS H. SCHOLL, New Braunfels, Tex.

Caucasian Bees—Their Good and Bad Qualities.

I have not seen much pro or con of late in the "Old Reliable" about the good and bad qualities of the Caucasian bees, and it seems that the most reports are "con." It will be remembered that I reported through the columns of this paper last season, of what I had learned good or bad of these bees, after having tried them two seasons. Now I have had another season's experience with them more extensively, and as it has been a good season, they have been well tested, and that in 7 or 8 apiaries, and along-side other races of bees, and also their crosses tested.

In addition to the good qualities, viz: gentleness, good comb-builders, prolificness, etc., which have already been brought out by those who have tested them, permit me to say that they winter well, rearing a lot of young bees during cold weather and spreading brood rapidly in very early spring, which makes them very desirable in late springs and in locations where the honey-flow comes very early.

The Caucasian colonies were so highly populated at the beginning of the honey-flow early in the spring that I became somewhat nervous over the thought of their swarming, but I continued to give them extracting supers, the frames of which contained full sheets of foundation, as they needed them during the flow, and kept a watch on the brood-chambers for queen-cells. To my glad surprise less than 10 percent prepared to swarm, while of the Italians side by side with them in the same apiary, under the same conditions, a larger percent did

make preparation to swarm and re-swarm.

I do not know what these bees would do in the production of section comb honey, as I have tried them only in a very limited way in this particular, nor do I know what they would do in this particular confined in a small hive, or their queens confined under excluders. But turned loose with plenty of proper room, I have every reason to believe that these bees excell any of the other races of bees.

There is another thing noticeable about the swarming of those bees, and that is the swarms cast are very small, so much so that the progress in the supers is checked but very little if any.

Another good feature about them is that they supersede their queens readily and often.

There is a bad quality about them which will prove to be a good one to the average bee-keeper in the South, and that is their so-called over-production of drones. It is a fact that the good stock in our apiaries is endangered by drones flying from inferior stock from every direction. This will have a tendency towards repelling this undesired race of bees, and it is the surest and easiest way this problem can be solved.

As honey-gatherers the Caucasian bees have proved to be a little superior to the other prolific races. They make more rapid progress at the beginning of the early spring flow, and store longer at the close of the season, and hold their own well during the season.

Their bad qualities are few and overbalanced by the good ones. The greatest of these is the gathering of bee-glue

Honey as a Health-Food

This is a 16-page honey-pamphlet intended to help increase the demand for honey. The first part of it contains a short article on "Honey as Food," written by Dr. C. C. Miller. It tells where to keep honey, how to liquefy it, etc. The last part is devoted to "Honey-Cooking Recipes" and "Remedies Using Honey." It should be widely circulated by those selling honey. The more the people are educated on the value and uses of honey, the more honey they will buy.

Prices, prepaid—Sample copy for a 2-cent stamp: 50 copies for 90 cents; 100 copies for \$1.50; 250 copies for \$3.00; 500 for \$5.00; or 1000 for \$9.00. Your business card printed free at the bottom of front page on all orders for 100 or more copies. Send all orders to the office of the American Bee Journal.

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Conducted by J. L. BYER, Mount Joy, Ont.

Long Drouth in Ontario Unbroken.

The prolonged drouth in Ontario remains practically unbroken to date (October 22). Since August 5th there has been only one rain of any importance. I doubt whether things have suffered much so far, from a bee-keeper's standpoint. Clover (alsike) was a good "catch," seems to be deeply rooted, and is at present looking well. Very little fall wheat has been sown, and as this is generally the best cover crop for clover seeding, the limited acreage may mean less clover for 1910. But that date is entirely too remote to be borrowing trouble over, so at present we refuse to notice anything but the good prospects for 1909.

A Good Fall Bee-Feeder.

Recently, while at Mr. J. McGillivray's, in Ontario, I was shown a feeder that struck me as being very handy and being possessed of some features that would commend it for use in the fall when large amounts of syrup have to be given for winter stores. Built on the principle of the Miller feeder, it differs from the original, in that there is no permanent cover, a wire screen being used on top instead. If more feed is required it can be poured through the wire-cloth and no bees can fly up, and at any time it is easy to see what progress the bees are making in storing the syrup. On top of the screen a quilt or board can be laid, and if the weather is cool a cushion can also be put on, so that the heat is better conserved.

Feeding Sugar Rather than Honey for Winter Stores.

In giving directions for preparing sugar syrup for winter stores, Editor Root in Gleanings, says, "But some will ask, 'Why not feed honey?' A good article is too expensive and a cheap honey is dear at any price."

The "reasons" given are valid, but, Mr. Root, you might have added, "Unless absolutely sure of the source of honey to be fed, there is great danger of developing foul brood." Perhaps some will think that the writer is a crank on the subject of foul brood, but from a number of cases that have come under my notice, I feel justified in saying that it is very *risky*, if not dangerous, to advocate the feeding of honey. No later than last spring an extensive bee-keeper wrote me saying:

"A few years ago I had foul brood among my bees, and by thorough work had eradicated the disease. Last fall

I was foolish enough to buy some cheap honey and mix it with the syrup for winter stores, and while I felt sure that there was no foul brood in the apiary said honey was produced in, now I find nearly all my colonies are dosed."

Needless to say there is not much likelihood of that man feeding much honey to his bees for some time in the future. Some say that in giving combs from one colony to another amounts to the same thing, but the cases are much different, as in the case of extracted honey; it may indeed be a little leaven, leavening the whole lump, as the honey from one foul colony may contaminate many pounds with the foul-brood germs.

Bees Well Supplied with Winter Stores.

Bees throughout Ontario, according to many reports received, are going into winter quarters in splendid condition. This is the case particularly in sections where there has been a fall flow of honey. In our own apiaries, the clusters are fully one-third larger than they were last fall. Other conditions being equal, this should mean good wintering, as especially for outdoor wintering I like to see good, populous colonies. For cellar-wintering it may be all right to rob the colonies in the fall of their old bees, but for outside, I would take no chances. Anyway, I have an idea that in moving the colony off the old stand, as advocated by some, that quite a few bees that are not *old*, are sacrificed. This idea of "Oslerizing" the old bees in the fall of the year is not new by any means, as some 12 years ago a number of Ontario bee-keepers (Jacob Alpaugh among them, if I am correct) were practicing the plan in a limited way. Of late years I have heard little about it, so quite likely there is "nothing doing" at present.

Cellar vs. Outdoors for Bees in Winter.

Winter is coming again, and with its advent many will be debating how to winter their bees. While cellars are preferred by some and the outdoor system by others, it was the writer's privilege to run across one bee-keeper this summer who winters his bees, some 50 colonies, in a room adjoining, and connected by a door with, the living-room occupied by the family. The bees had wintered in splendid condition, and the results would seem to prove, in this instance, at least, that a high temperature is not detrimental to the bees.

Asked as to whether the bees were noisy, Mr. Snelgrove replied that everything was quiet till the warm days of March, and then they were lively. Precautions were taken to darken the windows, but no other preparation was given to the rooms. Mr. Snelgrove intends to winter the bees in the same place this season again, and the results will be awaited with interest.

Relative to the subject of cellar versus outdoor wintering, it is an undeniable fact that there is a tendency here in Ontario towards more bees being wintered outside than has been the case heretofore. Whether this change is to be permanent or not remains to be seen. Certain it is that quite a few extensive bee-keepers that the writer is acquainted with, have signified their intentions of changing from cellar-wintering to the outdoor method.

Do Dark Brood-Combs Affect the Color of Their Honey?

Is honey extracted from dark brood-combs as light in color as that extracted from white combs in which no brood has been reared? Mr. Chapman, of Michigan, says there is no difference, and he ought to know, for certainly he produces lots of honey. In a private conversation with him at Detroit last week, he was quite emphatic on this matter, while the writer felt inclined to disagree with him, i. e., as far as the *first* extracting out of a dark comb from which brood has recently emerged, is concerned.

I have taken the pains to ask the opinion of a number of prominent bee-keepers who exhibit honey at fairs, and without any exception they say that the honey from the brood-combs is darker, and that for exhibition purposes they are always careful to extract only from new white combs. Certain it is that if these old brood-combs are filled with water and then given a whirl in the extractor, the resultant product is not "water white." Whether the bees eliminate this coloring matter before putting honey in the cells, is another question, but I very much doubt that they do so.

"The Honey-Money Stories"

This is a 64-page and cover booklet $5\frac{3}{4}$ by $8\frac{1}{2}$ inches in size. Printed on enameled paper. It contains a variety of short, bright stories, mixed with facts and interesting items about honey and its use. It has 31 half-tone pictures, mostly of apiaries or aparian scenes. It has 3 bee-songs, namely: "The Hum of the Bees in the Apple-Tree Bloom," "Buckwheat Cakes and Honey," and "The Bee-Keeper's Lullaby." It ought to be in the hands of every one not familiar with the food value of honey. Its object is to create a larger demand for honey. It is sent postpaid for 25 cents, but we will mail a single copy as a sample for 15 cents, 5 copies for 60 cents, or 10 copies for \$1.00. A copy with the American Bee Journal one year —both for 80 cents. Send all orders to George W. York & Co., 118 W. Jackson, Chicago, Ill.

American Bee Journal



By W. A. PRYAL, Alden Station, Oakland, Calif.

Sapolio vs. Propolis.

Some time ago I complained of the persistency propolis has in staying with me when it got on my hands. I tried almost everything I could think of, or had heard of, to eradicate it, but it was always a hard and tedious job. A reader of the "Old Reliable" in Iowa, a Mr. A. L. Dupray, wrote me to try Sapolio, the scouring sort. I have; 'tis good, especially if a little kerosene—any anti-trust kind possibly will be the best—is rubbed over the hands first. This is not an advertisement, but I hope the makers of the soap will consult their interests and advertise their wares in the American Bee Journal.

Getting Things Wrong.

California is looked upon by outsiders as a sort of wonderland. To us folk here it is not considered so wonderful, though we all consider it the best place in the world to live. Having a few wonders of ancient lineage, and occasionally a few of right-now origin ("big squash," for instance), the world beyond our border has come to believe that every other thing met with here is something grand. We wish they were. Then, there are people who, hearing that one man has a certain remarkable thing—be it a fruit, vegetable, house, horse or goat—forthwith proclaims that every thing else of like character in the State is remarkable, too. And some of our papers and promotion committees are slightly to blame for this misunderstanding.

But there is no excuse for an author promulgating a statement entirely at variance with the facts. Sometimes this is done through ignorance, but certainly that's no excuse. I find in casually looking over what is probably the best printed work on bees that has been issued from the press of this country, this statement: "In California instead of boards a thatched roof is made." The writer was considering shade for colonies of bees. I have yet failed to find any thatched roofs over our apiaries, though some may be found along the rivers, where hives are huddled together on stilts, against floods. Then the matter of such roofing is not so costly a matter. But imagine an acre of hives thatched over.

Alfilerilla.

This is undoubtedly the best of the early winter flowers for bee-forage that comes into bloom from plants that en-

tirely made their growth since the first rains at the close of fall or at the beginning of winter, excepting, sometimes, wild turnip or mustard. It rushes into vigorous life almost with the same rapidity as the marsh-mallow, and it soon makes excellent pasturage for stock which feed on it with avidity, and it is reported rich in nutrient. It continues to bloom over a longer period of time than most honey-secreting plants found upon the Pacific Coast, and it does not die with the approach of dry weather.

It is not known when this plant was brought to California; it is believed it was imported by the early missionary padres long before the advent of English-speaking people to the coast. The most common names for the plant are Alfilerilla, or Filaree, or pin-weed. Some call it pin-clover, but it is not a member of the clover family. Botanically it is Erodium, and was so classed by L'Heritier, a French scientist who flourished near the close of the 18th

many aliases—a sort of wandering botanical hobo.

Wilhelm Miller, editor of the "Garden Magazine," states that there are some 50 widely scattered species of Erodium, but I am able to find reference to only 4 varieties in California; Prof. Volney Rattan mentions 4, in his "Popular California Flora," and Miss Alice Eastwood, of the California Academy of Sciences, in her "Flora of the Pacific Coast," notes but 3.

The widest distributed variety is *E. cicutarium* or Red-stemmed Filaree. The green-stemmed variety, *E. moschatum*, has a faint odor of musk and is a more luxuriant grower than the preceding. A white-petaled sort is occasionally seen; the ones named are purplish-pink. It is a safe plant to cultivate for bee-forage; while it is self-seeding, it is easy of eradication. Being so closely related to the geranium, it is rather tender, though I have never seen it nipped by frosts which we occasionally have in nearly all parts of California during winter. While it might not be possible to introduce the plant into the Northern States, there is no doubt but it can be grown in that portion of the Southern States bordering on the Gulf. It has already been introduced into Arizona and Texas, where it is now quite common, I believe. The honey is light amber, at first rather rankish in flavor, but later pretty fair. It soon candies.

Railroad Freight-Rate Extortion.

It was some little time back when I saw in one of the papers a telegram from Reno, Nev., stating that the honey-producers in the neighborhood of Lovelock were making charges against the railroad company for discriminating against them in the matter of freight-rates; that an unjust rate was in force on honey. It was alleged that honey shipped from Lovelock to Chicago costs \$1.10 for each 100 pounds in carload lots, while from San Francisco to Chicago, 400 miles greater distance, the rate is 85 cents less than the shorter haul. The matter was to be considered by the railroad commission, but I have not heard what the outcome has been. It surely should be in the interest of justice.

Eucalyptus Honey.

I suppose at some time or another you have had that desire to "take your pen in hand" and write about something you had just seen, or something wrongly stated that you wished to correct. I know I've had, and the feeling has oft come over me when I have seen something published about how things are done in California, and the writer shot far wide of the mark. These misstatements are often made by Eastern writers who are not fully conversant with things Californian.

This observation has been started between my brain and my typewriter on reading Dr. Miller's paragraph on the eucalyptus, in Gleanings not long ago. The Doctor's afraid eucalyptus honey will contaminate all our honey, should we have these trees blooming the year around. Don't be afraid, Doctor. These



ALFILERILLA OR PINWEED.

century. The plant is found along the northern Mediterranean even into Asia, where it is believed to have had its first home. In Europe it is often referred to as Heron's Bill or Stork's Bill, and in this country it is called Crane's Bill. So, taking it all together, it is a plant of

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trees are not going to be that plentiful; we may have some when the main honey-flow comes from sage and other choice sources, but our most common gum-trees bloom at times when other honey-secreting flowers are scarce. It appears to me we will never have any varieties in numerous numbers other than those we already have, although 100 varieties have been planted here for experiment. Now, none of them interfere with our choicest honey. And so far as I have been able to notice, I do not see that our California eucalyptus honey is a bad article.

What makes the good Doctor think that this honey is going to be so damaging to the other honey? Don't think that because the peculiar climate of Australia causes the gum-trees there to produce a dark and strong-flavored honey, the same condition will prevail here. Of course it might be supposed that such would be the result. But I am not so pessimistic; I have not yet seen any honey injured by gum-tree honey, neither do I think it possible for any injury to be inflicted, as I have already stated.

So far as I have seen, what eucalyptus honey we have been able to get, has been pretty fair; seldom is it any darker than other honey produced at the same period of the year. But as for me, give me more gum-trees, even if the honey therefrom should be a little dark. We will be getting honey from where we had none before; besides, we will be growing valuable wood, for fuel and lumber.

Uniting Colonies of Bees.

I saw a man (can't call him a bee-keeper) once try to unite two colonies; he dumped the bees of a weak colony in front of another one that was almost equally deficient in strength, hoping that when the added bees entered the other hive he would have a rip-roaring colony. But he worked rather backward, for the two sets of bees got to fighting and the loss in dead bees made the colony no stronger than it was at first; it was worse in one respect, for they became an ugly lot of bees to handle. Some scented water to spray the bees with is excellent. Manage to shake both lots of bees in front of the hive you wish to retain and spray the bees with the perfumed water. Some use sweetened water, or diluted honey. Don't; it is likely to start robbing. Flour even may be used with good result, especially if some scented preparation has been mixed with the flour. A nice, decent odor will often cause the bees to be on good terms with strangers even of their own kind, as they are believed to be to strangers outside the hive.

Perhaps this is why the cleanly bee-master is unmolested, while the hobo and the darky whose personal odors are anything but inviting, are set upon by the bees. And the perspiring horse gets more stings than the sleek one. That nasty little rascal of malodorous scent, the skunk, possibly utilizes his obnoxiousness in coaxing the bees to come out and sting him, and in doing so they fall into his trap, which I shall mention hereafter.



Report of the Chicago-Northwestern Bee-Keepers' Convention.

(Continued from page 309.)

EXHIBITS OF BEE-FIXTURES.

"Can not some more definite arrangement be made for an exhibition of utensils, etc., at the next meeting?"

Dr. Bohrer—I believe every State should have a museum where bee-keepers' supplies and methods can be on exhibition all the time. Kansas has a fine place. We should have a room in the Capitol for exhibition. Let it be a school—a place of general information. A great many more would engage in bee-keeping if they knew how to begin, what to use, and where to get it.

Pres. York—Very few people would ever see an exhibition at Springfield. A State Fair is a good place. Chicago might be a good place. But go to Root's and Mr. Arnd's here in Chicago.

GASOLINE FOR FOUL BROOD.

"Is gasoline a good remedy for foul brood?"

Mr. Wheeler—in regard to this gasoline question. It is quite a point, worth our experimenting with, at least. A man was telling me his experience. He thought by dipping the combs in gasoline, then taking them out and letting the gasoline evaporate, it would kill all the germs.

Mr. Moore—This thing has been discussed. It is not new. This is the proposition: Take a cupful of honey, and down in it somewhere is this germ of foul brood. How long would you have to apply the gasoline to destroy the germ. You never can destroy the last germ, until you have dissolved every drop of honey. It is absolutely visionary to attempt to cure foul brood by formaldehyde or gasoline methods.

Mr. Wheeler—He meant only empty combs.

BEE-DEMONSTRATIONS AT FAIRS.

"Would it be beneficial to the industry to make demonstrations of management of bees at State Fairs?"

Dr. Bohrer—not to practical bee-keepers. Simply to other people for the sake of research.

Mr. Wilcox—Our State Fairs and Exhibits are willing to appropriate money to promote an industry. The question asked is: Will bee-keepers be benefited by paying an amount to make such demonstrations? It is a question that has been referred to me, and I would like to hear any definite opinion on the subject.

Dr. Bohrer—if the demonstrations are made by a man of ability, I have no doubt that they would be profitable. He should explain why he does things,

and not claim to be a wizard, etc. If they will give scientific talks it will be profitable.

INCREASING CONVENTION ATTENDANCE.

"How can the attendance of our meetings be increased?"

Dr. Bohrer—Every one should consider himself a committee of one to get one member, at least.

Mr. Whitney—Increase the degree of prosperity.

Mr. Wilcox—Increase the invitations by circular letters.

Dr. Bohrer—Increase the spread of bee-literature. I will not under any circumstances in the future insist on buying a colony of bees when a man knows nothing of bees. Make sure that he knows something about bees before engaging in bee-work. Don't encourage the man who knows nothing about bees. Get people to read bee-literature. Train the man and then let him keep bees.

Mr. Moore—I must go directly against Dr. Bohrer. By all means get one colony of bees. Bee-keepers as a class are the best class of people in this country. They are nice clean people, and good citizens. I feel that bee-keeping lifts men up from mere money-making. Nature study is a great thing. As to circulars, etc., we spent \$35 for letters to people all over several States. About a year and a half afterward we get \$30 back.

Mr. Whitney—I have sold bees to people who don't know a thing about them. But I find whenever I meet them that they have a bundle of bee-papers under their arms. They are studying up.

Mr. Lyman—My experience in selling bees is that I first get the money, and after a while I get the bees back again.

MAKING HONEY-VINEGAR.

"What is the best method of making honey-vinegar?"

Mr. Wilcox—Can honey-vinegar be profitably made from honey?

Mr. Taylor—I think not.

Mr. Arnd—it is not profitable, as you can not get enough money for it.

Mr. Moore—There is no demand for honey-vinegar. It is hard to work up a demand. Cross & Blackwell's vinegar brings \$1.00 a gallon, or 25 cents a quart. Cider vinegar brings 60 cents.

Dr. Bohrer—I can not find a sale for my vinegar.

Mr. Moore—The market is bare of pure cider vinegar. There is too much cheap stuff on the market.

Dr. Bohrer—you can not make good cider vinegar out of poor apples. There is too little sale to advise making good vinegar.

Mr. Arnd—I suppose the best method

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for a bee-keeper is just to take the honey that he has and mix it with rain-water—about a pound to a gallon. You can start it with yeast or with "mother," and let it ferment in the old way. It takes about a year. But a quick process may be used. To get good, sharp vinegar you should take 2 pounds of honey to a gallon of water. This vinegar will keep, I think.

CHAFF HIVES VS. SINGLE-WALL HIVES.

"Are chaff hives better than the regular single-wall hives, the year around?"

Mr. Taylor—I wouldn't have a chaff hive at all. There is no advantage that I know of, and there are great disadvantages in the bulkiness in handling the hives.

Mr. Whitney—For out-door wintering there is nothing better. Made of thin stuff they are as easily handled as the dovetailed hive. There are many advantages, I think. I have used both, and like the chaff better.

WINTERING BEES OUTDOORS OR IN A REPOSITORY.

"Is it better to winter bees in chaff out-doors or in a special repository?"

Mr. Taylor—in this locality it is better to winter in a repository. It is a saving of stores if you winter bees in the cellar.

Mr. Wilcox—it is a saving of the life of the bees. I don't winter them successfully out-doors, but do in a special repository.

Mr. Whitney—I winter bees out-doors successfully. Perhaps if I had a good cellar I might use it. But it is a double-walled chaff hive that I use. I have had no trouble. As to stores, I don't know whether they take more or not. Some one says that they take less stores outside than they do inside.

Mr. Taylor—I have experimented upon that point for several years. I weigh my hives when I carry them in, and when I put them out, and those that I winter out-doors I weigh the same way. There was quite a difference in the consumption of stores in the colonies in the cellar and outside. Bees wintered in the cellar use an extremely small amount of stores, sometimes only 3 pounds; from that to 8 or 9. There was one time when they didn't winter very well, that they used considerably more in the cellar. As a rule, they don't use more than half as much indoors as out.

Mr. Whitney—Out-door wintering gives the bees an opportunity for a flight. That is very favorable. Perhaps that counteracts the larger amount of honey used.

(Concluded next month.)

A Big Combination.

We offer The Garden Magazine (\$1.00), Farm Journal 2 yrs. (25 cts.), and the American Bee Journal (75 cents)—all three one year for only \$1.50. This is a fine opportunity to get 3 good papers for a very small sum. Address all orders to the office of the American Bee Journal, 118 W. Jackson, Chicago, Ill.

Apiarian Pictures

We would be glad to have those who can do so, send us pictures of bee-yards, or of anything else that would be of interest along the bee-keeping line.



Send Questions either to the office of the American Bee Journal or to
DR. C. C. MILLER, Marengo, Ill.
Dr. Miller does not answer Questions by mail.

An Appeal to Questioners.

It sometimes happens that a correspondent asks a question relating to something appearing in a previous number of the American Bee Journal, but gives no hint as to where it may be found. Either he thinks that I am an omniscient being who has in mind, like an open page, all that has ever appeared in print relating to bees, or else he thinks it fine entertainment for me to leaf over a hundred or more pages to find what he is talking about. It so happens that I am not omniscient, and however entertaining it may be for me to go on a still hunt for the thing he has in mind, the limited amount of time at my disposal hardly allows too much indulgence in that direction.

Just within a few days, one correspondent asked a question referring to something in a previous number of this Journal. It would have cost him very little to have mentioned the page, but it cost me no little time to look over, and more or less read over, quite a number of pages before finding what he referred to.

Another correspondent had some questions about a certain plan—let us call it the Jones plan. Now I hadn't the slightest idea what the Jones plan was, whether he had seen it mentioned in the American Bee Journal or some other bee-paper, or indeed whether it had ever been mentioned in print. I might have written him to inquire, but unfortunately he failed to give his address. Although real names are not often printed in this department, it is probably the rule in almost all publishing offices that a communication without real name and address goes into the waste-basket. It would have cost him little trouble to give name and address, and still less to have given the page he referred to.

My appeal is that number of page be given whenever any item in print is referred to, and also that name and address be given, although the latter will not be published.

C. C. MILLER.

Perhaps Swarmed Out—Feeding Bees for Winter.

I bought 9 colonies of bees in February and April. I did not get them transferred until May 12, on account of my bee-goods being lost in freight one month. I was therefore out the best month in this locality and this year for starting them.

One of my colonies stored 30 to 40 pounds of fine honey, but the others refused to work in the supers at all. I examined all the colonies September 2. About half of them have worked out only about 5 frames out of 10, and have very little honey in the combs. All have more or less young bees. I have 10 colonies. I had 12, but the moths got 2 of them. I bought 5 queens and introduced them about August 1. One of the colonies that died was a July 1st swarm, and the other was one of my best at the start, but it swarmed and left very few bees in the hive, and I think left no queen. Is that possible? Advise me if you know of anything to tell me to do. These are my first bees, and I am anxious to bring them through the winter. Shall I feed all sugar in the fall, or shall I try to feed the weak ones in the brood-chamber when they go in for winter? I will winter them out-doors.

TENNESSEE.

ANSWER.—It is possible that your colony swarmed out and left no queen in the hive. At any rate, such cases have been reported.

It doesn't matter so much how you feed, so that you make sure that each colony has plenty of sugar syrup for winter. As far south as Kentucky you can feed pretty late, but don't put it off too long. Better get all the

feeding done before the bees are ready for winter quarters. If you have trouble about feeding the weak ones, you can feed an extra amount to the strong ones, and then draw from the strong ones sealed combs to give to the weak ones. But are you sure you ought to have any weak ones? Would it not be better to unite until all are strong? It is better to unite two in the fall and have one the following spring than to have both die in the winter.

Hive-Entrance the Long Way—Invertible Super—Foundation Splints—Jumbo Hive.

1. What do you think of having the entrance the long way of the hive, $\frac{3}{8}$ -inch high, during the honey-flow? Did you ever try it?
2. Why wouldn't it be a good plan to have the super so that you could turn it over? Wouldn't we get better filled sections?
3. Where can I get splints the same as you use?
4. Have you used the Jumbo hive since the time you mention in your book?

MASSACHUSETTS.

ANSWERS.—1. If you mean to have the entrance the long way of the hive, and that the only entrance, I shouldn't like it so well as to have the entrance the usual way, because the latter allows freer entrance of air. In Europe it is quite common to have the entrance as you describe. That's called the "warm arrangement," and the frames running at right angles to the entrance (the common way here) is called the "cold arrangement." I never tried the single entrance at the side, but have practiced quite largely having the entrance on all four sides. I like it much, but now have only the one opening 2 inches deep, as being in the long run more convenient.

2. Supers have been made to use in that way, but have never come into general use; perhaps because the advantage did not pay for the extra trouble.

3. The A. I. Root Co., Medina, O., make them, and perhaps you could get them from any dealer in bee-supplies.

4. No; I didn't care to give it further trial after I found I could not rely on it to prevent swarming.

Caucasian Bees—Requeening—Rearing Breeding Queens—Cutting Cells to Prevent Swarming.

1. Are the Caucasian bees as gentle and as good honey-gatherers as the Italians?

2. What is the best time of the year to requeen?

3. Will I have to kill the present queen and drones, and cut out all the queen and drone cells in the hive, before requeening?

4. How long will a colony have to be queenless before introducing a new queen?

5. Tell how to manage it to rear queens for breeding purposes.

6. When cutting out queen-cells to prevent swarming, will it be necessary to cut out all queen-cells or leave one to help out the old queen?

7. How often will I have to look for queen-cells?

I am a beginner in the bee-business.

NEBRASKA.

ANSWERS.—1. The Caucasians were heralded as the most gentle of all bees. No doubt some of them are; but others are reported as being no gentler than Italians. Not as much has been said about their gathering ability as their gentleness, and it is hard to say just yet what their status will be in that particular. They are still more or less on trial.

2. There is perhaps no better time than during the honey harvest. Yet circumstances

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may make it advisable to take some other time. For instance, if you want to change your stock as rapidly as possible, instead of waiting till next harvest, you will get a new queen this fall or next spring, so that you can begin breeding from her as soon as next season begins.

3. No need to kill the drones in any case. The old queen must surely be out of the way before a new one can be liberated in the hive. Not absolutely necessary to cut out queen-cells, but it may be safer.

4. Not more than 2 or 3 days. Oftener the queen is removed at the same time the new queen is put in, but the bees are not allowed to get at the candy for 2 or 3 days, and the old queen is removed at the same time the bees are allowed to get at the candy. In most of my introducing the past season, I removed the old queen upon first putting in the new queen, the latter being a fast prisoner in the cage, and 3 days later I let the bees at the candy.

5. Not certain just what you mean. All queens are reared for breeding purposes; but perhaps you mean how are you to rear a queen that shall be extra good to breed from. Perhaps there is nothing special to do, except to keep close tab of what your bees do, and to breed from the queen of the colony that has given best results.

6. All must be cut out—rather destroyed—unless you want the colony to swarm. But destroying cells is by no means reliable in preventing swarming. A colony may swarm in spite of your destroying cells every day.

7. There's no law against your doing so whenever you feel like it, but I suspect you mean to prevent swarming. As already said, the bees may swarm in spite of all you can do in that way, but it is hardly necessary for you to destroy cells oftener than once every 10 days. If that will not prevent swarming, it will hardly prevent it to destroy them more frequently.

Keeping Queens Over Winter.

Can you advise me of a way to keep a queen-bee alive during the winter? The colony has been destroyed.

PENNSYLVANIA.

ANSWER.—I know of no way without having a lot of worker-bees with her.

Winter Bees in a House-Room.

I have 4 colonies of bees that I wish to winter safely. Would it do to put them in an up-stairs room that has no stove-pipe running through? The room is over a room that will be warmed. I could darken the room.

IOWA.

ANSWER.—Might be a good place, providing it is kept dark, with an even temperature of about 45 degrees. The chances are against that, and the probability is that bees would winter poorly there.

Why Not Advertise for Honey?

I have about 100 colonies of bees, and my honey didn't supply the demand for sales. I would like to know of some good, reliable firm to buy 200 or 300 pounds of honey from, and also would like to know how they put the honey on the market—by comb honey or extracted. I suppose I could sell about 200 or 300 pounds, and it would be a great favor to let me know of some firm who would ship me the honey at a reasonable price.

SUBSCRIBER.

ANSWER.—The advertising columns of the American Bee Journal ought to help you out. If you do not see what you want advertised, a small advertisement from you would no doubt bring you offers.

Cellar-Wintering of Bees.

1. As I expect to winter my bees in a cellar, what time in November or December would be best to take them in, in Central Iowa?

2. I have an old colony of bees 2 years old that swarmed 3 times this year. It is in a box-hive with holes at the top, but would not store any surplus honey. It was seemingly strong in bees toward the end of the season. They worked very slowly. I thought they were queenless, but when cold nights came and chilled the brood, they would carry out a large amount of it. The prime swarm they cast stored 90 pounds of comb honey, the second swarm about 25 pounds. The prime swarm I put in an 8-frame hive and the second swarm in a box-hive, so you see they are very industrious. Can you tell me if the old colony is queenless, or have lost

their ambition? The hive seems to be full of honey.

3. I have an 8-frame hive that it is almost impossible to lay a cover over the top of the brood-frames, so I laid a board over the top of the hive and sealed it air-tight, but it leaves a $\frac{1}{2}$ -inch air-space over the top of the frames. Will this matter if I winter them in the cellar?

The bees in this locality did well this year.

IOWA.

ANSWERS.—1. That depends somewhat upon the weather. Perhaps it will average somewhere near the first of December. If you can tell when they will take their last flight, the day after that will be the right time to take them in.

2. Naturally the colony would not be very strong after sending out 3 swarms, and you hardly ought to expect anything more from it than to build up for winter. You said the bees carried out brood. Like as not that was drone-brood which was carried out after the young queen was fertilized. Of course, it is impossible for me to be positive about it, but the chances are that the colony is all right.

3. It will do no harm.

Using Again Parts of Hive Having Foul Brood.

If bees with foul or black brood partly fill comb and extracting supers, can the sections and extracting combs after being extracted, be used again next year, or can they be disinfected so that they are safe, or should they be destroyed—the fences, combs and sections?

PENNSYLVANIA.

ANSWER.—The safe thing to do with combs from foul-broody colonies, whether the combs are in sections or in frames, is to melt them into wax. Some say they have succeeded in disinfecting them with formaldehyde, but others say it is not a success, and it is best to be on the safe side. Fences would probably be safe to use again, providing they are not daubed with honey.

Why Didn't the Bees Do Better.

Last spring I got a very small colony of bees. They sent out a very large swarm the latter part of July. I went down to Toledo to the G. A. R. Encampment, and stayed 3 weeks. When I came back I found the bees all dead, and no honey. A few days after the first swarm they sent out another. Other bees are doing well, except they fight like little demons. What is the matter?

SOUTH DAKOTA.

ANSWER.—After sending out the 2 swarms, the young queen was lost perhaps on her wedding trip. That left the colony hopelessly queenless, and the colony being previously weakened from swarming became a prey to robbers, perhaps what bees were left going with the robbers.

Covering for Bees in Cellar.

As I am going to winter some bees in the cellar the coming winter for the first time, I would like to know what to put over the top of the hives, or do you leave the covers on? Would 2 or 3 thicknesses of burlap be all right?

KANSAS.

ANSWER.—My hives are now on the stands just as they will be in the cellar. That is, they will be lifted from the stand with the bottom-board and cover, carried into the cellar, and piled up 4 or 5 high. The burlap would be all right, too; probably better than close-fitting covers unless entrances are very large. My entrances are 2 inches deep, the full width of the hive, and there is a space 2 inches deep under bottom-bars.

Management to Prevent Swarming—Italians as Fighters and Wax-Makers.

I began bee-keeping when I was 11 years old, and am still at it. My first colony was what I believe are called the German gray bees. They were in a box-hive made to use caps. I now have 4 colonies of bees in this kind of hives.

1. I am thinking about making supers fitted with extracting frames about 12 by $5\frac{1}{2}$, to put under these hives in the spring, and leave them there till they are full of brood, and then take them out from under the hives and put them on top over the excluder and leave them there for the brood to hatch, and fill the combs with honey. My object is to

prevent swarming. Is it a good plan? I don't want to transfer them.

2. Last spring I bought a 3-frame nucleus of leather-colored and Italian bees, and put them in an 8-frame dovetailed hive. They filled this and 2 supers with fine honey; but oh, such fighters! They are not inclined to fight unless bothered, and then they are about as bad as hornets. Is this a common thing with Italians?

3. I notice that the Italians use about twice the amount of wax in comb-building than the gray bees use. Is this a common thing?

Please excuse me for bothering you with these questions. I finally made up my mind to write to you, and when a boy of 15 makes up his mind he is hard to stop.

MISSOURI.

ANSWERS.—1. Yes, except the idea of continuing odd-sized frames. You don't say when you intend to make the change, which is an important point if you want to put up the frames of brood to help prevent swarming. To get the best results it should be about 10 days before swarms are likely to issue, although local conditions may make some difference. If you are in a white-clover region, you will do well to put up the brood about the time the bees begin to store in the supers.

2. Italians have the reputation of being rather gentle. You may have been unfortunate in getting a particularly vicious strain, or there may be some black blood in them—what you likely call gray blood—for hybrid bees, that is a cross of black and Italian, are apt to be vicious. In any case, possibly you are not as gentle in handling them as you might be.

3. No.

Indications of Queenlessness—Rearing Queens.

1. Is there any way to tell if a colony is queenless without looking for the queen?

2. How is queen-rearing done?

MINNESOTA.

ANSWERS.—1. Not at this time of year. You can tell any time from the time queens begin to lay in the spring until they stop in the fall. If no eggs nor brood are present, there is no laying queen. There may be, however, a young queen which has not yet begun laying. Give the colony a frame of young brood, and if there is no young queen the bees will start queen-cells on the frame you have given.

2. To answer that question in full would take a book. Indeed there is an excellent book on queen-rearing by no less an authority than G. M. Doolittle. Possibly what you are trying to get at may be answered by saying that a queen can be reared only by worker-bees, and that if a colony be made queenless the workers will rear a queen from a young worker-larva by feeding it with special food. [See page 324 for price of Doolittle's book.—EDITOR.]

A Method of Swarm Control.

I should like to try the following method of swarm-control, using the Dudley tube, as explained in the Bee-Keepers' Review for August, 1907, page 234. As soon in the spring as the queen begins to fill the hive with brood, remove some of the frames of brood with adhering bees, placing them in an empty hive-body, which is to be put, with cover and bottom-board in place, under the main hive. The only exit from the under hive is by way of a tin tube which extends from the closed entrance to the entrance of the hive above, so that as the older bees leave the lower hive they will emerge at the entrance of the main hive and return to it thereafter.

As the brood hatches from the lower hive, it is replaced with frames of brood from the upper hive, and the empty combs returned to the queen. This gives the queen unlimited room, and at the same time produces a very strong colony. When the honey-flow begins, the lower hive is placed above the main hive, and used as an extracting super, or it can be removed entirely and a super of sections added for comb honey.

1. If the queen is thus given plenty of room, will swarming be prevented, even though the hive be crowded with bees?

2. Should only capped brood be put in the over-hive, or can the bees attend to brood of any age if thin syrup be fed them in an Alexander feeder?

3. For colonies run for extracted honey, would there be any disadvantage in the above system, over simply placing the extra hive-body of drawn combs over the main hive

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allowing the queen to occupy them both until the honey-flow begins, then keeping her below with an excluder?

PENNSYLVANIA.

ANSWERS.—1. It would certainly decrease the tendency to swarm, just as increasing the queen's room for eggs always does; whether it could be relied on in all cases as an entire preventive is hard to say without trying. I should rather expect it would so long as fresh room for the queen is constantly given, and even when the flow comes and the lower hive is given above as an extracting super, there ought to be little inclination to swarming, as in the case of the Demaree plan, which is to put all brood above an excluder at the beginning of the honey-flow, leaving the queen below the excluder with comb foundation or empty combs. When one story is entirely removed and a section-super given, it is much the same as shaking a swarm.

Even if I had given the plan a thorough trial, and could tell you exactly what I could rely on, it would still remain true that under your conditions and with your bees, results might be different. After actual trial you may like the plan, and you may not.

2. You would find it practically impossible to shift combs of sealed brood without having any unsealed, nor would it be necessary.

3. I don't know. Separating the bees so that they occupy separate hives must be at a loss of some heat as compared with keeping the bees all in one body, and yet Mr. Dudley must count that there are overbalancing advantages or he would hardly use the plan. Whether it will so turn out for you can be told only upon trial.

Tincture of Myrrh for Bee-Stings—Drumming Bees—Transferring Bees—Robber-Trap—Cutting Out Queen-Cells—Ventilating Hives.

1. What kind of bee are those enclosed? I see no mention in any article in "A B C of Bee-Culture."

2. Are there no bee-sting remedies among so many that are worthless? I will mention what I came across that I am now using, and it is the best of all the many I ever tried. Get a 10-cent vial of tincture of myrrh, and if stung just remove the cork and turn the bottle upside down over the sting and moisten the part stung. The effect is none, or very little swelling, and the pain will cease in from 15 to 30 minutes. When working with bees I always carry the bottle in my pocket, and as soon as stung, out and on it goes. If certainly is fine, and I shall use it hereafter always, although I am somewhat used to stings. Still, once in a while I get a dose that lasts 3 or 4 days, especially on the eyelids. Now let some of our bee-friends try it. It is a wonder, and only 10 cents. It has a pungent odor just as bee-poison, but harmless, and good for many things.

3. What do you mean in answering queries by "drumming" the bees out of a hive in transferring, and how is it done? Is it knocking on the sides or top, and for how long, and how hard? Do you use just the fingers, or fist, or stick?

4. When not practicable to give idle combs to bees to clean out the worms, what would you do?

5. In transferring bees from box-hives into modern hives, I see you always advise "after they swarm, then 21 days after." Now, as one person asks in the September issue, suppose they don't swarm. I had 2 or 3 colonies at one time, and oh, how I had wanted them to swarm, as I wanted increase, and they did not put forth a swarm for 3 seasons. I did not consider myself lucky. Suppose, and I know it is a fact, a swarm issues that has been in a box-hive and I want increase badly, and before 21 days one more, or 2 more, will issue out of the same hive; what then? From where do I count 21? At the present time I want to save all the bees until I get a supply, as I have at this time only 8 colonies, and 4 of them are in box-hives. Those I shall change over into modern hives the coming spring. The other 4 are not any too strong to adopt the nucleus plan, and I don't consider myself adept enough for that, so I want the natural process, and be ready for it. I seem to have been "up against it," for every time I would do anything with my colonies I would lose them. So hereafter no more experimenting. I am not out for the money in the bee-business. No, bless you, no; but I take delight in it, and know a little better, so now that I have 8 colonies—more than I ever had before; but dear me, not my own rearing, but my pocket-book's depletion, for in the last 8 years as high as I ever got was 3 colonies, then 2,

then one, and finally none, and oh, what a success bee-business is to a beginner! Well, I know better; but I paid for it.

6. In doubling up swarming bees, or 21 days after swarming, do you smoke them the same as you would in doubling weak colonies in the fall for wintering?

7. In the September issue I see a robber-trap described as a flat tube made out of wire-screen funnel-shaped, the point to extend into about the middle of the hive. Very simple, destroy the robbers. Very good, but how about the bees in the hives? I know the bees in and among the robbers, but how are you going to pick them out when the bottom is nailed on? You destroy just as many home bees as you will robbers, and the way I look at it you surely make a mess of it. How do you understand it?

8. Suppose I have a queenless colony, at least I think they are. I want to requeen by the only chance I have, in taking a frame from another hive of the same dimensions, and have but 2 hives alike. Said frame is partly covered with hatching bee-larvae in several stages, and eggs. No queen-cell that I could see. If I give this frame without any live bees on it to the queenless colony will they rear a queen from it?

9. At what time of year will I find queen-cells, and where shall I look for them? I found I had any amount of empty queen-cells. I had bought those bees previously, and they were in a sugar-barrel, so I transferred them right away, and have had more or less trouble with them since. There was where my trouble started, in saving comb and losing or killing the queen. I have looked in 3 hives and could find nothing but empty queen-cells.

10. In hiving a swarm in the spring will this swarm send out another swarm in the same season? Can I expect a swarm again?

11. Is a glass over the top of the hive injurious to the bees? I put a glass over my hives in order to see them, whether they are doing all right. Then I put on a wooden cover, then a gable roof, and then an oiled canvas large enough to hang over the sides. Besides that they were under a tree. You must remember that this is south, and it gets hot. I have now discarded the glass plan as being no good, and henceforth will replace with oilcloth. Am I right?

12. When should the cutting out of queen-cells be done, and what is the object? Do you take a knife and cut them off and destroy them?

13. When ventilating a hive by pushing the top forward, will not the bees use the space as an entrance, or maybe start comb-building? Where you have to raise the cover on account of the strips on the bottom and sides, and having an oilcloth under the top, how about air then? Oilcloth is almost airtight; besides it is stuck all around.

TENNESSEE.

ANSWERS.—1. I don't know. The number of different kinds of bees, I think, runs up into the hundreds; they are of no more interest to bee-keepers than other insects, and so descriptions of them are wisely omitted from our literature.

2. Yes, the number of remedies offered has been very great, and they were offered with just as much confidence as you offer this. May yours prove more reliable.

3. Turn a hive upside down, drum on the sides of the hive with your fists or a heavy stick on the opposite sides, and if you drum long enough with heavy strokes you will set the bees to running up into whatever is placed over. No light tapping with your fingers will do, neither will the fists do unless strong and heavy.

4. According to the description in your letter, you certainly had a serious time trying to get rid of the worms. Once established and of good size, it is hard to kill them in a comb with any amount of sulphur. Even if you kill the worms, the eggs are still left. Try bisulphide of carbon. Pile up your combs in hive-bodies, an empty body on top, in which set a saucer of the bisulphide and quickly cover up close. Don't have a fire or light near, or you will have an explosion. You will find not only the worms but the eggs will be killed.

5. If you want to get all the swarms possible, hive the first swarm and set it on a new stand, leaving on the old stand the old colony. A second swarm is likely to issue in 8 or 10 days. Hive it and set it on a new stand, and treat any others that may issue in the same way, always leaving the old hive on the old stand. In 21 days from the time the first swarm issued, cut up the old hive and transfer to a new hive.

But you say, "Suppose the colony does not swarm?" If you want to make sure, don't wait for it to swarm. As soon as it is good

and strong, honey coming in well, drum out a swarm, hive it in a new hive, and set it on the old stand. Call the old hive No. 1. As before said, set the swarm on the stand of No. 1; set No. 1 in place of another old colony, No. 2, and set No. 2 in a new place. In a little less than 2 weeks you may be pretty certain No. 1 will send out another swarm. Hive it and set it in place of No. 1; and set No. 1 in place of another old colony, say No. 3, setting No. 3 in a new place. That will strengthen No. 1 again, so that in one or more days it will be likely to swarm again, and every time it swarms you will set the swarm in place of No. 1, set No. 1 in the place of some other old colony, which old colony you will set in a new place.

Of course, you have the alternative to transfer all colonies without waiting for any to swarm; a good time for that being during fruit-bloom.

6. Yes.

7. You probably refer to an item on the middle of page 276. I think the idea is that the colony which is being troubled by robber-bees will be taken from its stand in the evening, after flight has ceased, and put in a cellar. Then "the trap is put on the stand of the robbed colony," the trap being, as you are told on page 276, nothing more nor less than a common hive with a Porter escape or a cone escape. Thus you will see there will be nothing but robber-bees in the trap-hive.

8. Yes; but the experience you detail shows that there may be exceptions and failures.

9. You will find empty cell-cups almost any time; but you will find them occupied normally only when the bees prepare them for swarming or supersEDURE. If you desire them at other times, you must make bees queenless, and then they will start queen-cells.

10. If a swarm is hived and itself sends out a swarm the same season, the latter is called a virgin swarm. In an experience of 48 seasons I'm not certain that I ever had more than one virgin swarm, and that was in the past season. But some others have them more commonly. I don't know how it may be with you.

11. A queen-cell is cut out when one wishes to move it to some other place for the bees to rear a queen from it. If it is desired to destroy queen-cells, to prevent queens from being reared in them, they are not generally cut out, but mashed down so as to destroy the larvae in them.

12. If an opening is made other than the usual entrance after the bees have that entrance established, they seem little inclined to use any other but the regular entrance. I don't understand how there would be chance for comb-building. Most hives do not have oilcloth, nowadays, I think.

A Thanksgiving Hymn.

Another year with bounty crowned
Has rolled from out Thy hand;
Another year with blessings rich
Our lives has gently spanned.

Another year of peace has blessed
Our free and happy land,
And plenty dwells in all our homes
By Thy divine command.

And now as round the cheerful board
We gladly join once more,
With dear ones gathered from afar,
To count Thy goodness o'er,

Let all our hearts with thanks be filled
Unto our fathers' God—
For Mercy, Love and Peace which He
Hath scattered far abroad.

And let the beauty of the Lord
In every mind be found,
Until the country of our choice
With wisdom shall abound.

—Selected.



Making New Bee-Keepers.

Some time ago a person protested against the making of new bee-keepers, that they would soon put the specialists out of business. Now, I do not believe that the spread

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of information on bees among the farmers and all who are so situated that they can keep bees will result in overstocking any locality. But those who do this should tell the truth, and not write big, glowing, sensational articles that are miles from the truth.

If all the farmers who keep bees in an old-fashioned, slipshod way were to start in and buy modern hives, and give the bees the care they should have, there would be no need of foul brood laws or anti-spraying laws; but because the farmers are ignorant of the real profit they are letting go to waste, such laws must be made in order to protect the man who keeps bees for his bread and butter, and for all who keep them in a modern way.

If all would help in the spread of information, as Dr. C. C. Miller, E. W. Alexander, and some others, have done, ignorance and the box-hive bee-keepers would soon be a thing of the past.

Last, but not least, in helping others we will help ourselves, for it will cause honey to be used by families where it was not used before. The idea that some honey is adulterated still clings to some people, and the more they know about the truth, the better it will be for the bee-keepers' patience.

CHAS. M. HIX.

Hampshire, Ill.

Very Light Yield of Honey.

My honey crop this year has been very light. I have only 2 colonies, but I did not get a pound of honey in the supers, but I am pretty sure they have plenty to winter on. I can examine only one. The other has built the comb in such a way that the frames can not be moved. I intended to put it into another hive when it swarmed, but it did not swarm.

T. T. ARMSTRONG.

Hiawatha, Kans., Oct. 15.

Good Yield of Extracted Honey.

On September 21 we finished our fourth extracting from 50 8-frame Hoffman supers, summing up a total of 7542 pounds of fine honey, from white and sweet clover, for which we found ready sale at 7 cents a pound.

We live in the Snake River Valley, near the famous Thousand Springs. This is the best honey country we have ever lived in, foul brood being unknown here.

PURDY BROS.

Hagerman, Idaho, Oct. 12.

Still Dry—No Fair Bee-Exhibition.

It is still very dry here. Bees are still at work on a white weed. The balance have all dried up. Our County Fair is going on now, but they make no provisions for a bee-exhibition. I live with my mother who is 89, on a place of our own.

R. B. PERRY.

Greenfield, Tenn., Oct. 15.

Bad Luck in Spring.

I had very bad luck with my bees last spring. I lost one more than one-third of them. It was a very cold spring and they dwindled badly. However, I got about 60 pounds of extracted honey per colony, increased from 25 to 48, and had to feed only 5 colonies.

I can not do without the American Bee Journal. It has so much useful information about bee-keeping, and so much interesting reading.

EDWARD KNOLL.

Clarksburg, Ont., Oct. 17.

Honey Crop Same as Last Year.

The fall crop of honey here is about the same as last year. I have 75 colonies in 5 yards. I work for honey only—both comb and extracted. I have a good home demand built up.

JOHN W. CASH.

Bogart, Ga., Oct. 12.

Shipping Bees by Express.

You say you don't know what can be done to put a stop to such an outrage, as that mentioned on page 903. May I ask who is to blame? You, Mr. White, and I, and every man who earns his living by his hands and brains and goes to the polls to vote every election day. So long as we vote for capitalism and trusts, just so long we will have to get down on our knees to them. To stop it, vote in favor of government ownership of express, banks, and railroads. That is what I'm going to do on Nov. 3.

I had some of the same experience as Mr. White not long ago. I wanted to send a 5-gallon can of honey to an uncle in Nevada. The honey was worth only \$3.90, and the railroad company wanted to charge me \$7.40 per 100 lbs. out there, or \$4.50 for one can. I fooled them. That is since "Teddy" has regulated the railroad rate.

My crop this year is 43,000 pounds of comb honey from 600 colonies, and the work was done alone, except one month of grading and packing.

A SUBSCRIBER.

Montrose, Colo.

Fair Crop of Honey.

I had 43 colonies of bees, spring count, and now have 90. I have taken off over 2000 pounds of honey. The dry weather stopped their gathering about the middle of July. I sold some of the honey for 15 cents, but the most of it for 12½ cents a pound.

JOHN SEBRING.

Gilman, Iowa, Oct. 22.

Half a Crop of Honey.

The weather was not favorable the past season for a honey-yield. I had half a crop. The weather was too wet and cold in the spring, and too dry since.

W. H. STOUT.

Pine Grove, Pa., Oct. 21.

Good Year for Bees.

We have had an extra-good year for the bees—a good flow from horsemint in May and June. Then in July the sumach gave us a good crop, and at this writing the bees are just rolling it in from broom-weed. If frost stays off 2 weeks longer I will get from one to 2 supers per colony from broom-weed.

All together I will get about 100 pounds per colony, counting out 3 that didn't do anything. I have 24 colonies, mostly hybrids, and run for both comb and extracted. I have a good home market for all I have to offer, at 15 cents for comb and 10 cents for extracted.

Blanket, Tex., Oct. 12.

A. A. ASHLEY.

All Bee-Keepers Should Read Bee-Papers.

I have 3 neighbors who keep bees, yet none of them care to take a paper. None of them attend to their bees except to hive a swarm if they chance to see it issue. One man has not caught a swarm for 2 years, nor do any of them seem to care how many swarms get away.

Yet often they ask me about such and such a matter concerning my management of bees. I have grown into the habit of making a reply like this, "Really, I know very little about such things. The best way is to take a good bee-paper. Almost every number of the American Bee Journal answers some such question."

I hope I am not selfish, but if I pay for what information I get from a paper, why should I pass it on to those fully as able—even more so—to take such papers?

MRS. GERTRUDE L. GOODWIN.

Roy, Wash., Sept. 24.

An Iowa Apiary.

EDITOR YORK:—The enclosed clipping is from the Decatur County Journal. It is written by the postmaster of Leon, who was once editor of the paper. He questioned me some days ago about my bee-business, as I receive a good many queens by mail. The closing sentence is misleading. He asked me where I got my best queens and I replied that I get my best purchased ones from West Virginia, Kentucky, Texas, and New York; and that I get some good ones from other States. Leon, Iowa, Sept. 7.

EDWIN BEVINS.

[The item Mr. Bevins referred to in his letter above reads thus:—EDITOR.]

THE BEVINS BROTHERS' APIARY.

The Bevins Brothers conduct one of the most extensive apiaries in this section of Iowa on their well equipped and cultivated farm of several hundred acres in Eden township, 5 miles south of Leon on the Pleasanton road.

Edwin Bevins has made a study of the business for years and he is probably one of the most practical authorities on bee-culture in the State. To a representative of the Journal, Mr. Bevins stated that the present season is the poorest for the honey-business that he has

known for many years. He attributes this fact to the severe freeze that occurred last spring, injuring the white clover plant from which the bees obtained the food used in the manufacture of honey. In 1904 the growth of white clover was very prolific, and consequently that year surpassed all others in the production of honey.

Mr. Bevins says that he commenced that year with 90 colonies from which he obtained 250 swarms of bees before the close of the season.

The Bevins apiary is stocked with Italian bees obtained from New York, Pennsylvania, Ohio and Texas.

Danger from Foul Brood.

The bees have made good in the mountains this year—better than common. I got 291 cases of comb honey fit to ship, and 20 partly sealed that I sold at home, from 125 colonies, and the price held up better than I expected it to. But I fear we are going to have lots of trouble with foul brood. A man died last fall that owned the largest number of bees of any one in the valley, and his bees were sold at action and scattered broadcast. They were badly diseased. We have an inspector, but nearly every one has a few colonies for home use. You know what that means. Besides, every school house has a few in the walls; so do most of the barns; and the bees are under bridges and in the rocks where they can't be got at, and if they get the disease it will be impossible ever to get it out of the country until they are all dead. Then maybe we could start over again. E. C. WRIGHT.

Montrose Co., Colo., Sept. 28.

Report for the Past Season.

As I was sitting in my home this afternoon I was reading the American Bee Journal and just as the Editor says he wants it to contain good moral literature, I will say that it certainly tries to, which I like to read very much.

Reading Mr. Edwin Bevins' article on the shredded wheat biscuit and honey, I will say I had tried that before and please make note of it next month. I cut it open as you would a sandwich, and put the delicious honey in it, and then of course I ate it as a hog does good corn.

My bees are fine, and have been the past summer, and now my trouble, if any, will commence. Last winter late, and early spring, I lost 2 colonies from "moths," I suppose. Between the frames there was mold, and then in them were white worms about $\frac{1}{4}$ -inch long. I don't know what to think of it, as I did not lose any more that were on the same stand or platform.

My other colonies averaged 65 pounds per colony. I secured my first super from the first flow, but I didn't put any supers on this fall, as I wasn't looking for a good flow, and I know my bees did some storing also.

Starting into winter I have 4 colonies. Three are very strong, in old hives. I wish to transfer them, but as they are in bad shape I am puzzled as to what to do. Two of them have crossed brood—that is, the brood is laid crosswise of the hive.

I have new hives of the 10-frame style and the reversible. What about the reversible bottom, or whatever you call it? It comes off clear of the hive.

E. BOYD WILLIAMS.

Wheatland, Ind., Oct. 18.

Bees Do Well There.

I have done well here with my bees. In this State bees get along fine. I have wintered 6 or 8 colonies here in a shed for the past 3 winters, and not one colony has died. I put one sheet of oilcloth on top of the frames. On top of that I put a piece of flannel, then the cover, then paper and old carpet or burlap. This shed has a ground floor with about 2 inches of sawdust on top of the ground.

GEO. H. ALLEN.

City Point, Mass., Oct. 3.

Bees Did Fairly Well.

Bees have done fairly well this season in this locality. Mine averaged 40 pounds per colony—all from white clover. There was no fall flow at all. There was plenty of hearts-ease, smartweed, and buckwheat, but there was no nectar in it—something very unusual. I always looked for the bulk of my crop out of the fall flow. I use the 10-frame hives, double-walled, and use cork for packing these. I think, all things considered, they make the

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best hives. I have used some other styles, but do not like them myself. Like the Dandans, I prefer the large hives for honey and successful wintering. I winter my bees on the summer stands and never lose any colonies that have plenty of stores and a good supply of young bees, although there must be good, young queens at the head of the colonies or there will not be the required amount of young bees.

I like the American Bee Journal and will never be without it as long as I keep bees. I think it is the best bee-paper in print.

Hampstead, Md., Oct. 14. SUBSCRIBER.

Some Money in Bee-Keeping.

I see Mr. L. E. Gateley thinks that the man who turns his entire attention to bee-keeping will make a financial failure. That is not the fact on the Western Slope. There are half a dozen bee-keepers in this Valley that do nothing else, and they are all getting rich. There is no business in Colorado that pays so well in proportion to the money invested. For instance, one bee-keeper with 600 colonies received a check for his 1907 crop of \$4050; another with 400 colonies, \$2500; and bees sold here in the spring of 1907 for \$3 per colony. Our crop for 1908 is better than last year. I have 125 colonies, and the crop of 1908 was \$6000. If that is not percent enough, what would Mr. Gateley want?

E. C. WRIGHT.
Montrose, Co., Colo., Oct. 13.

The Bee No Small Affair.

EDITOR YORK:—I enclose an item taken from the editorial page of the Minneapolis Journal of recent date, which may be of interest to the readers of the American Bee Journal.

I had fair success with my one colony of bees for a start this year. I took off 39 pounds of section honey and had 3 nice swarms besides. I also had 76 pounds in extracting combs, over and above what the 4 colonies need for winter.

I keep bees for recreation and pleasure, and combine them with strawberries, chickens, and garden.

I always look forward with pleasure and interest for the next issue of the American Bee Journal, which I think is an ideal paper for all classes of bee-keepers.

FRANK L. HUBBARD.
Minneapolis, Minn., Oct. 10.

[The item referred to by Mr. Hubbard in the foregoing, reads as follows:—EDITOR.]

THE NEGLECTED HONEY-BEE.

The American hen has been shown by statistics to be a more lucrative bird than all the more showy aviating animals put together. She even produces more wealth than the mines of the country. She tops the cotton crop with the value of her cackle.

But here comes the busy bee with its claim. Last year the mines of Colorado produced \$35,000,000 in money on a stock capital of about as many billions. But the honey-bee, which is not incorporated at all, and for which no keen promoters sell blocks of stock that are bound to double in value in sixty-days—the honey-bee has \$25,000,000 to its credit. Yet the bee is neglected. People do not warm up to a bee as they do to a race horse. When a bee comes buzzing by, singing its song of wealth and contentment, people jump out of their boots. They avoid the bee instead of rejoicing to see it with its dinner-pail over its arm. Consequently, the bee is neglected. Admittedly, if it received the attention bestowed upon the hen, its output would triple in value in 2 years. Why not give the bee a run for its money?

White Mulberries for Bees.

I keep just one colony as a sort of pastime. All boys must have fun; even the 70-year-olds are no exception. They afford me pleasure and study, profit and stings. I have an exclusive place that is well protected from cold winds and the excessive vigilance of the street urchins who would fondly shy rocks at the hive to see if the bees will bite. I am surrounded by my neighbors' gardens, which offer fine forage, besides the white and sweet clover to be found on the edges of our town. Mine are the active Italians and attend strictly to business on all favorable occasions. On warm summer days they seem actually to fall over each other in their efforts to fill the storehouse. And as we naturally like to help those

who help themselves, I began the middle of June to pick, mash, and feed white mulberries to them, placing a liberal allowance on the alighting-board several times each day, as long as they lasted—August 13th—a more prolonged fruitage than usual.

And they show their appreciation of my service in a substantial manner.

I have learned several practical kinks regarding bees by just keeping my eyes and ears wide open, and if the boys want to know I will gladly tell them, but I am persuaded that it is useless to attempt to explain to their "daddies," as they already know too much and don't wish to enlarge their sphere of knowledge. Usually the old "fellers" are too indifferent to acquire "tips" on new ventures. But I like boys and girls because they are never stationary—they want to know.

Well, toward the end of September I concluded I would see what my 3 supers contained. Each 9-frame super was packed with good, luscious honey. The 27 frames I conservatively estimate at 100 pounds of fine sweets as ever bees produced. I cut around the frames, cut the slab in 2 pieces, put them into clean butter-crocks and transferred them to a shelf in our basement for the delectation of our family and friends.

I winter my colony on its summer stand, protecting it by inverting a larger box over the hive and covering with tarpaulin against the rains and melting snows.

With some 40 pounds of provision in their home I feel assured they will, as before, pull through handsomely, and be ready to greet me in the spring.

DR. PEIRO.
Chicago, Ill., Oct. 10.

Too Dry for Fall Honey.

I have sold 20 colonies of bees, reducing my number to 14, and that is more than I can handle, as I am at home so little. I have taken only 600 pounds, or sections of honey off this season, but have not sold any for less than 16 cents a section. The season has been too dry here for fall honey. Bees got no buckwheat honey, though there was lots of buckwheat around here.

E. E. KENNICOTT.
Glenview, Ill., Oct. 10.

Some Interesting Bee-Experiences.

I will give you some of my successes and failures in a new country. Having handled bees in Indiana since I was 12 years old, I came to Northern Minnesota 6 years ago, and had been without bees until last spring when I sent for one colony, which I received about the middle of May. So by spreading the brood I increased the 8-frame colony to 16 frames, of which 14 contained brood. At this time I divided it into 4 colonies.

The next week, or first of July, I received a queen by mail, so I was compelled to start another nucleus to receive her, which made 5 colonies, 2 with laying queens and 3 with queen-cells. The failures were in getting queens mated. I lost 4 out of 5. I think the dragon-flies would catch them when they would fly out to mate, or at least they would disappear.

At present I have 4 colonies running over with bees, and have taken 24 pounds of comb honey and about 75 pounds of extracted. I have not bothered the brood-chamber of 10 frames, and reserved 8 full frames to put back for the bees.

Since extracting there has been another fall flow from which I expect 50 pounds. At this flow the bees were so excited that they would leave the hive when it was so dark that they could not see to return.

While I have handled bees for 25 years, I have met with several strange things. I started 3 nuclei with queen-cells in ample time. They hatched and were nice queens, of which one commenced to lay. The other two disappeared, at which time I gave a frame of eggs, from which they promptly started queen-cells; but before the queen hatched, when I would go to examine them they would form about a dozen balls the size of a hen's egg, as if they were balling that many queens. On taking the balls out and smoking them, I found nothing but a hairless, black looking bee in each one. If I would smoke the ball apart, as soon as I would quit smoking they would jump onto it again. Were there commencing to be laying workers, and in the presence of queen-cells did they want to dispose of them? When they would commence to ball these, they would not quit until they had thrown them out dead. This was only one colony, and when the queen hatched they treated

her well at first, but she did not lay, and after about 21 days they commenced to treat her cross, and at last to ball her. I guess they came to the conclusion that she was "no good" without laying, at which time I disposed of her and united them with another colony.

I do not find anything in my text-book like this.

Another curiosity: I went to a hive the other day and opened it, when to my surprise I saw a huge bumble-bee queen, the size of the end of my thumb, walking among the bees without being molested. Had she gone in there for the winter? Would she do any harm to the bees, do you suppose? At that date (September 28), from one colony in an 8-frame hive, spring count, I had increased to 4 colonies, and have 70 drawn combs, with about 125 pounds of extracted honey and 20 pounds comb honey, water white and of fine flavor.

DAVID E. DOBBS.

Indus, Minn.

Found It Worth Something.

I know the worth of the American Bee Journal. One copy of the 1906 issue I borrowed from a neighbor that gave me instructions on how to treat foul brood, and saved me two colonies, which later in the season this year, filled 4 supers of alfalfa honey. The 2 colonies—all I had—were combined in April. I burned the brood-combs, boiled the frames, burned the inside of the hives, and then put the bees back after 48 hours. They did fine, and were passed as all right by the bee-inspector last week.

L. W. BENSON.
Grand Junction, Colo., Oct. 24.

Feeding Bees.

Having read so much about feeding and feeders in the bee-papers for the last few months, I thought I would explain a method which I have practised with success for several years. This method has the following arguments for its use, especially to the extracted-honey producer: 1. There is no need of feeders and their expense; 2. You can feed at any hour of day; 3. It is natural and quick.

Here is the explanation. 1. There must be an extracting super on each hive, or if you run for comb honey, replace the outside row of sections by a shallow extracting frame.

2. Prepare your syrup. If you have a good method follow it. But here is the way ours is made: Into boiling or cold water placed in an extractor (or if you haven't an extractor a tub will answer), stir gradually an equal amount of granulated sugar and water by whirling the baskets. Stir until the syrup reaches the desired consistency. You will notice on page 269 that Mr. G. M. Doolittle gives a very good method. When the syrup is finished place it in a pot with a spout or an old water sprinkler with the spreader removed.

3. Approach the hive and gently push the cover back until the end of the frame is uncovered. Remove the frame, laying it flat on the lid. Then pour a little syrup on the comb, rubbing it into the cells by a circular motion, continually pouring more syrup on until you have that side filled. Then turn the frame once and fill the other side in the same manner. Replace the frame, cover the hive, and proceed in like manner through the apiary. The bees will come up into the super and remove the syrup to the brood-chamber when they will ripen it. In a few days return to the apiary and repeat the process until you have fed enough syrup for your purpose.

It will be noticed in the above that I say frame instead of frames. Here in California where the weather is warm nearly the year around, I have prepared as high as 4 frames to the colony, but in the East I couldn't advise you to do this. You understand, of course, that a strong colony could take care of more syrup when fed after this plan. This method is especially valuable for stimulative feeding in the early spring.

Redlands, Calif.

CHAS. TROUT.

Chicago-Northwestern Convention

This will be held in the Club Room of the Briggs House, corner Fifth Ave. and Randolph Sts., Chicago, on Wednesday and Thursday, December 2 and 3, 1908, beginning at 10:30 a. m. on Wednesday. It occurs at the time of the

American Bee Journal

International Live Stock Exposition, so that low rates will likely rule on all railroads entering Chicago. The question-box will, as usual, occupy "the center of the stage." The Chicago-Northwestern convention has the reputation of being the most interesting meeting of bee-keepers in America. Any question of interest can be brought out and discussed thoroughly by some of the best bee-keepers in all the world. Bring your questions with you, and everybody come. Ladies are especially invited.

It is expected that among others the following will be present: Dr. C. C. Miller, C. P. Dadant, N. E. France, Geo. E. Hilton, W. Z. Hutchinson, Franklin Wilcox, Jas. A. Stone, J. Q. Smith, Chas. Becker, E. D. Townsend, and Ernest R. Root. Come and help to make this the best meeting the Chicago-Northwestern Association has ever held.

HERMAN F. MOORE, Sec.
Park Ridge, Ill.

Pennsylvania State Convention

This convention will be held in the Court House at York, Pa., Nov. 12 and 13, with headquarters at Marshall Hotel. Rate, \$1 per day.

On Thursday, at 1:30 p. m., there will be an address by President Prof. H. C. Klinger; an address by Dr. E. F. Phillips; and then a general discussion of apiculture in the United States.

On Thursday evening there will be an address by Geo. Rea; on Friday afternoon an address by Prof. H. A. Surface, on "Hay and Honey Plants;" Friday evening an address by Dr. E. F. Phillips, on "Treatment of Bee-Diseases."

It is contemplated that with two more pre-arranged communications the program will be ample, and due attention may be given to the consideration of the legislative control of bee-diseases, and timely topics.

It is urged that our present membership make special effort to bring other bee-keepers into our ranks. We need many new as well as our old members to work together during the coming winter to secure the enactment of the bill that was so uniformly approved at the last session of the Legislature.

A. F. SATTERTHWAIT, Sec.
Harrisburg, Pa.

The Panhandle Convention

The Panhandle Bee-Keepers' Association will meet in Knights Golden Eagle Hall, corner 38th and Jacob Sts., Wheeling, W. Va., Monday, November 16, 1908. W. L. KINSEY, Sec.

Blaine, Ohio.

Illinois State Convention

The Illinois State Bee-Keepers' Association will meet Nov. 10th and 20th, at the State house in Springfield. We may have no program except what will be made up by the best of our bee-keepers—which is always better than a set program, if those present are alive to their opportunity.

The Illinois State Bee-Keepers' Association has made arrangements with the State Board of Agriculture to have

bees handled in cages at the State Fair. In one cage, for the purpose, a foul-broody hive will be shown up. Louis Werner, of Edwardsville, will do the manipulating. JAS. A. STONE, Sec.
Rt. 4, Springfield, Ill.

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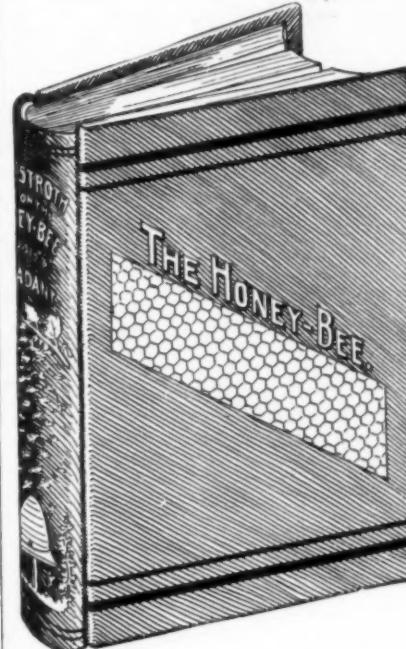
Books for Bee-Keepers

Every bee-keeper should have a bee-book besides a bee-paper. On another page will be found all the best books offered—either at a price, postpaid, or as a premium. If you can not earn them as premiums for getting new subscriptions, it will pay you well to purchase one or more of them. You will find them of great value. There are so many things in the books that are useful to know, and that of course could not be told over and over again in the bee-papers. If a bee-keeper can afford only one, it would better be the book rather than the paper. But now that the American Bee Journal is only 75 cents a year, of course, no bee-keeper, however limited his apiary may be, can afford to be without its monthly visits.

Langstroth on the Honey-Bee

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Gleanings in Bee Culture

If you haven't seen a late copy of Gleanings you can't tell from any brief description how really magnificent it is. There are many valuable departments, and our subscribers just at this season of the year are telling how much they appreciate the paper.

Each issue is very fully illustrated. The covers are done by the finest engravers in Chicago, and our writers are the best in the land. Besides dozens of writers of prominence whose names we can't even mention for lack of space, we have such men as Dr. E. F. Phillips, U. S. Dept. of Agriculture; Dr. Edward F. Bigelow, Associate Editor St. Nicholas; F. Dundas Todd, former Editor Photo-Beacon; Allen Latham, Connecticut, etc.

A trial of six months (12 numbers) costs 25c. If in addition to your own subscription you secure others for six months keep 10c on each one for your trouble. A liberal cash commission to those who do canvassing for us.

Gasoline Engines and Power

Honey Extractors

For large apiaries, or where the honey comes with a rush and labor is scarce, you should investigate our power machines. A circular of these will be sent on request.

MARSHFIELD BEE-GOODS

FRIEND BEE-KEEPER—We are prepared to fill your orders for **Sections**. A large stock on hand. Also a **Full Line of Bee-Supplies**. **We make prompt shipments.**

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Marshfield, Wis.

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S. D. Buell, Union City.
NEBRASKA—Collier Bee-Supply Co., Fairbury.
CANADA—N. H. Smith, Tilbury, Ont.

ARIZONA—H. W. Ryder, Phoenix.
MINNESOTA—Northwestern Bee-Supply Co., Harmony.
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FOR SALE 1908 crop of White Clover Honey, all extracted from capped combs. A strictly fancy table honey that will please. Price, 10 cts. Sample free. Put up in 60-lb. cans either square or round. **WARREN H. WINCH, Hopkinton, Iowa**
Mention Bee Journal when writing.

5000 Lbs. Clover and Basswood Honey—nice, well-ripened—in 5-gal. round, bail-handle cans. \$5.50 per can here. Sample free.
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American Bee Journal

**For Over
Twenty-Five Years**

our make of goods have been acknowledged to be in the lead as regards **Workmanship** and **Material**.

Our **Air-Spaced Hive** is a most excellent winter hive, and convenient for summer management as the single-walled. Same inside dimensions as regular Dovetailed Hives; all inside material interchangeable with Dovetailed Hives.

We manufacture a full line of **Bee-Keepers' Supplies**.

Fall and winter discounts:— Sept., 7 per ct.; Oct., 6 per ct.; Nov., 5 per ct.; Dec., 4 per ct.; Jan., 3 per ct.; Feb., 2 per ct.; Mar., 1 per ct. Catalog free.

W. T. FALCONER MFG., CO.
Jamestown, N. Y.

Mention Bee Journal when writing.

**Honey and
& Beeswax**

CHICAGO, Oct. 21.—There has been a fair trade in honey this month, prior to which time there was practically none. We think there is a little firmer tendency, but there is no advance in prices. The A No. 1 to fancy grades are bringing 13 to 14c, with anything below this of 1 cent to 3 cents per pound less; this includes the amber and second grades. The best grades of white extracted range from 7 to 8c, with amber 6½ to 7c; off flavors and low grades from 5 to 6c. Beeswax is meeting with ready sale at 30c when free from impurities.

R. A. BURNETT & CO.

CINCINNATI, Oct. 22.—The market on comb honey is more active, and there are some large lots moving. There will be no big prices, due to the fact that there is considerable old honey left from last year. No. 1 white comb honey is selling at 14c, or 15c in small lots. Dark or off grades are not selling at any price—there is practically no demand for them. Amber honey is in good demand at 6½ to 7c; white clover honey is selling at 8c in 60 lb. cans; water white sage, fancy, at 9c. Beeswax is in fair demand at 30c.

The above quotations are what we are selling at.
C. H. W. WEBER.

KANSAS CITY, Oct. 22.—The market is pretty well supplied with comb honey; on account of the warm weather the demand has been light, but with the advent of cold weather we look for a much better demand. The receipts on extracted are very light; the demand good. We quote No. 1 white comb honey, 24-section case, \$3.00 to \$2.75. White extracted, 8c; amber, 7 to 7½c. Beeswax, 28c. C. C. CLEMONS & COMPANY.

NEW YORK, Oct. 22.—The demand for comb honey is fair but not up to former years. Receipts are sufficient to meet the demands; there is no overstock, however, and prices are holding firm. We quote: Fancy white, 15c; No. 1 white, 13 to 14c; No. 2 white, 12c; dark and amber, 10 to 11c, ac-

Headquarters for Bee-Supplies

At Root's Factory Prices
Root's Goods

Honey Wanted

**Fancy white clover Extracted.
State how it is put up, and the
price expected, delivered Cin-
cinnati.**

C. H. W. WEBER CINCINNATI
...OHIO...
Office and Salesrooms, 2146-48 Central Ave. Warehouses, Freeman and Central Aves.

cording to quality and style of package. Extracted in fairly good demand, but large supplies. We quote: California white sage, 8½ to 9c; light amber, 8c; white clover, 8 to 8½c; amber and dark, 6 1-2 to 7c. Southern in barrels and half barrels, 60 to 75c a gallon according to quality. Beeswax dull and declining. We quote nominally 28 or 29c.

HILDRETH & SEGELEN.

ZANESVILLE, OHIO, Oct. 22.—If any change there is a slightly improved demand for honey, though prices are a little lower. No. 1 to fancy white comb should bring on arrival about 13c; extracted, 7 1-2c. No. 1 to fancy comb sells to the retail grocery trade at 15 to 16c. Clover extracted in 5-gallon cans sells for 9 1-2 to 10c. Beeswax brings on arrival 28c cash, or 30c in exchange for merchandise.

EDMUND W. PEIRCE.

PHILADELPHIA, Oct. 23.—Honey has been arriving quite freely in the last 10 days, but owing to the quantity kept back by the producers the markets are somewhat unsettled. We quote: Fancy white comb honey, 15 to 16c; No. 1 white, 14 to 15c; amber, 13c. Fancy white extracted in 60-lb. cans, 8 to 9c; amber, 6 to 8c, according to quality and flavor. Beeswax, 28c. WM. A. SELSER.

DENVER, Oct. 24.—With the advent of cold weather the demand for honey has improved somewhat. We quote No. 1 white, per case, \$3.15; No. 1 light amber, \$3.00; No. 2, \$2.85 per case of 24 sections. Strained and amber extracted, 6½ to 7 1-2c; light amber, 7 1-2 to 8½c; white, 8 1-2c. We pay 24c per lb. for clean yellow beeswax delivered here.

THE COLO. HONEY PRODUCERS' ASS'N.

INDIANAPOLIS, Oct. 22.—There seems to be a good demand for best grades of both comb and extracted honey. Prices are still irregular, but producers are offering fancy white comb at 12½c; No. 1 white at 12c; and best extracted, in 5-gallon cans, at 7c. Almost no demand for amber grades. Beeswax is steady at 28c spot cash.

WALTER S. POUDER.

TOLEDO, Oct. 23.—The demand for comb honey does not seem to be as brisk as was expected and, owing to the exceedingly large crop, prices are very low. We are offering fancy and No. 1, from 15 to 16c; No. 2, 14c. We do not handle any darker grades. There is some demand for buckwheat honey in the East, and this would probably bring from 12 to 12½c. Extracted is quite firm; white clover in cans or barrels, 7½c in a small way—some instances 8c; amber, 6 to 6½c. Beeswax, 26c cash, or 28c in trade.

THE GRIGGS BROS. & NICHOLS CO.

ITALIAN BEES AND QUEENS, SUPPLIES
Standard Goods. Ask for Circulars.

ALISO APIARY, El Toro, Orange Co., Calif.

Books for Bee-Keepers

Have you a good bee-book? Many bee-keepers do not have. And that is where they make a big mistake. A bee-paper cannot take the place of a good bee-book. The paper is a splendid thing to read in connection with the book. On another page we make some generous clubbing offers of bee-books with the American Bee Journal. Why not order a book when renewing your subscription? You will find the book and the Journal a great combination. You should have both of them.

Getting New Subscribers

This should be a good time to get new subscribers for the American Bee Journal. On another page we offer a number of premiums for such work. We hope that as many of our present readers as possible will help us to increase our subscription list. The more intelligent bee-keepers are, the better it will be for all interested in the business. And much of that intelligence is secured by reading. We will be pleased to send free sample copies on request. Shall we not be favored with a large increase of new subscriptions during the next 2 or 3 months?

Pays to Have a Bone Cutter.

One of the greatest virtues of feeding cut green bone is in its freshness, when it is not only more relished by the fowls but produces far greater results in egg production.

To own a bone cutter and cut the fresh bones every day is the method of the successful poultry keeper. This is made possible to many by the low cost and adaptability of several machines on the market, notably the well-known Crown Bone Cutter which works easily and quickly and soon pays for itself in the increased egg output of the flock.

The makers of this machine, Wilson Bros., Box 618, Easton, Pa., have issued a descriptive catalogue of their various sizes which they will send on request.

It would be advisable to secure a copy and look into the matter.

American Bee Journal

Before buying your **Comb Foundation** or disposing of your **Beeswax** be sure to get our prices on Wax and Foundation, or get our prices on **Working Wax into Foundation**.

We are also in a position to quote you prices on **Hives, Sections and all Other Supplies**. We give **Liberal Discounts** during the months of November, December, January and February. Remember that

Dadant's Foundation

is the very best that money can buy. We always guarantee satisfaction in every way.

Langstroth on the Honey-Bee (new edition), by mail, \$1.20.

Send for our prices on Extracted White Clover and Amber Fall honey.

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HONEY AND BEESWAX

When consigning, buying, or selling, consult

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199 South Water St. Chicago, Ill.

Bee Journal for 1907—40c.

We still have on hand some complete volumes of the American Bee Journal for 1907, which we will mail for 40 cents each. The first half of that year the Bee Journal was issued weekly, and the last half monthly, which would make 32 numbers. And all of them for only 40 cents! Surely this is a bargain for any new reader who has become a subscriber this year.

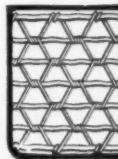
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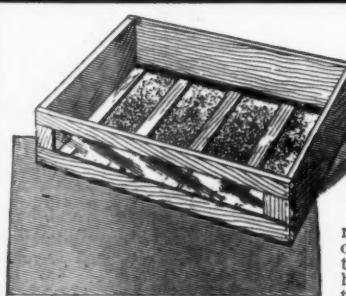
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Shipping-Cases

For any number or size of Sections desired. These cases are made of fine white basswood and the workmanship is first class. Owing to the shortage of the honey crop last year, we have a good stock on hand and can make immediate shipment.

Twelve-inch case with follower to hold 24, or 8-inch case with follower to hold 12 bee-way sections, shipped when no size is mentioned. All cases single-tier unless otherwise ordered. The double-tier case has many advantages; lighter, stronger, shows more sections, is handled and stored easier. Further particulars to those interested.

Honey-Packages in Tin

Standard packages for storing and shipping extracted honey. Less chance for leakage or taint from wood; being square they economize on space. Five-gallon cans boxed two or one in a box, gallon cans 10, and half-gallon cans 12 to the box. Five, one and half-gallon cans not boxed if desired. Prices on application for any quantity.

Place your order for the number of Cases and Honey Packages wanted, and we will guarantee prices and prompt shipment.

Minnesota Bee Supply Company
152 Nicollet Island, Minneapolis, Minn.

